

# **Support to Ukraine in Implementing Its National TB Program**

## **Detailed Implementation Plan**

**Cooperative Agreement No. GHS-A-00-03-00010-00**

**Project Location: Ukraine**

**Project Duration: October 1, 2003 – September 30, 2006**

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## List of Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AFB	Acid-fast bacilli
BCC	Behavior change communication
CDC	Centers for Disease Control and Prevention
DIP	Detailed Implementation Plan
DOTS	Directly Observed Treatment, Short-Course
DRRS	Data recording and reporting system
DST	Drug susceptibility testing
ECHO	European Community Humanitarian Office
EU	European Union
FGD	Focus Group Discussion
HIS	Health information system
HIV	Human Immunodeficiency Virus
IDU	Injection Drug Users
IEC	Information, education, and communication
IPC/C	Interpersonal communication/counseling
ITP	F.G.Yanovsky Institute of Tuberculosis and Pulmonology of Academy of Medical Sciences of Ukraine
KAP	Knowledge, attitudes, and practice
KIT	Royal Tropical Institute
KNCV	Royal Netherlands Tuberculosis Association
MDR	Multidrug resistance
MIS	Management information system
MOH	Ministry of Health
MOU	Memorandum of Understanding
MTB	<i>Mycobacterium tuberculosis</i>
NGO	Nongovernmental organization
NIS	Newly Independent States
NRL	National Reference Laboratory
NTP	National Tuberculosis Control Program
PATH	Program for Appropriate Technology in Health
PDR	Primary drug resistance
PLHA	People living with HIV or AIDS
PTAG	Project Technical Advisory Group
QC & QA	Quality control and quality assurance
SDR	Secondary drug resistance
SES	Sanitary Epidemiological Station
STI	Sexually transmitted infections
TB	Tuberculosis
TB EMIS	TB Electronic Management Information System
UNAIDS	United Nations AIDS
UNFPA	United Nations Population Fund

USAID	United States Agency for International Development
VCT	Voluntary counseling and testing
WB	World Bank
WHO	World Health Organization

## A. Executive Summary

PATH has received \$1.5 million through the Child Survival and Health Grants Program to undertake a three-year project entitled, *Support to Ukraine in Implementing Its National TB Program*. The proposal was submitted under the Standard Application Category. The primary goal of the project is to improve tuberculosis case detection and management in selected locations through the implementation of the WHO-recommended strategy, DOTS, thereby contributing to a reduction in public health risk of tuberculosis. The project is being implemented from October 2003 through September 2006. The sole program focus is TB control. PATH has identified cost share totaling 27 percent of the budget.

Both TB incidence and mortality have risen sharply in Ukraine in the last ten years. The increase in mortality rates is likely due to late detection, multidrug resistance, and, until recently, shortages of TB drugs. Further, the burgeoning HIV epidemic will likely drive TB incidence upwards in the coming years. As in all former Soviet countries, conventional TB case detection in Ukraine relies on mass screening using miniature chest x-ray (fluorography), a highly inefficient approach. In addition, 90 to 95 percent of new TB patients are usually hospitalized for six to eight months. The WHO-advocated strategy has met resistance in Ukraine in the past, but receptivity to the approach is improving. In 2000, WHO initiated a pilot DOTS introduction project in Donetsk Oblast, and the Royal Netherlands Tuberculosis Association received European Union funds in 2003 and started to implement a DOTS pilot project in Kyiv City.

The project sites include the predominantly urban setting of Donetsk Oblast (population 4.8 million) in eastern Ukraine, and Kyiv, the largest city in Ukraine (population 2.6 million). In the third year, an additional oblast will be selected for DOTS expansion in collaboration with partners. The estimated number of direct beneficiaries includes approximately 6,000 new TB cases and their families per year in the project areas as well as an estimated 500,000 people living with HIV/AIDS. Indirect beneficiaries include the entire population of the selected oblasts, due to the highly infectious nature of TB and the susceptibility of the population. In particular, vulnerable groups, such as people living with HIV, the undernourished, the elderly, and relatives of people with TB, will benefit.

Key objectives and their respective strategies are to:

1. Improve capacity for DOTS expansion in Ukraine by advocating for political support for DOTS at all levels of government, including facilitating the development of an appropriate legislative base in support of newly introduced TB control approaches and by assisting the government with DOTS "expansion preparedness" to additional oblasts.
2. Improve the quality of TB diagnostic services in at least two oblasts by designing, implementing, and building capacity to sustain quality control procedures for smear microscopy, culture, and drug sensitivity testing, and, if possible, evaluating improved technologies for TB case detection.
3. Improve use of monitoring and surveillance data for TB program management by introducing and institutionalizing methods to monitor program performance at all health service levels.

4. Reduce diagnostic delay, increase case detection, and improve adherence to TB treatment by stimulating timely and appropriate health-seeking behavior for TB symptoms; implementing specific community mobilization strategies; increasing awareness and understanding of TB transmission, symptoms, treatment, and cure among the general public, as well as among specific populations at risk; and introducing culturally sensitive treatment support strategies for TB patients and their families.
5. Improve provider practices by strengthening provider capacity to diagnose and treat TB based on DOTS, improving systems to support appropriate referral of TB cases, and enhancing knowledge of and response to HIV/TB interaction, with emphasis on appropriate counseling and client-provider interaction with emerging populations at risk.

Our local partners include:

- Ministry of Health of Ukraine
- F.G. Yanovsky Institute of Tuberculosis and Pulmonology of the Academy of Medical Sciences of Ukraine
- Kyiv City Health Administration
- Kyiv City Central TB Dispensary
- Donetska Oblast Health Administration
- Donetska Oblast TB Dispensary
- Kyiv City Sanitary Epidemiological Station
- Donetska Oblast Sanitary Epidemiological Station
- WHO Office for TB Control in Ukraine
- Royal Netherlands Tuberculosis Association and Royal Tropical Institute of Netherlands
- Ukrainian Red Cross Society
- NGO Medical Information and Analytical Center “Vector” (Kyiv)
- NGO Centre “Health of Region” (Donetska)
- World Bank TB/HIV/AIDS Control Project

PATH’s original proposal was discussed in detail with Dr. Olena Radziyevska, Senior Health Specialist, Regional USAID Mission for Ukraine, Belarus, and Moldova, and Dr. Kestutis Miskinis, Medical Officer of the WHO Office for TB Control in Ukraine. The main authors of this document are Amie Bishop, Anatoliy Tsarenko, Katya Gamazina, Andrew Dadu, Tamara Ivanenko, and Siri Wood. The contact person at PATH headquarters for the program is Amie Bishop, Ukraine Country Program Leader for PATH.

## B. CSHGP Data Form

### Child Survival Grants Program Project Summary

DIP Submission: Mar-11-2004

PATH Ukraine

#### Field Contact Information:

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**Last Name:** Tsarenko  
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#### Project Web Site:

#### Project Information:

<b>Project Description:</b>	"Support to Ukraine for Implementing Its National TB Program." This project aims to improve capacity for DOTS expansion by advocating for political support; strengthening TB diagnostic capacity and quality control procedures for smear microscopy, culture, and drug sensitivity testing; strengthening TB surveillance capacity; improving provider capacity; and increasing public awareness and patient support.
<b>Partners:</b>	The Ministry of Health of Ukraine, the F.G Yanovsky Institute of TB and Pulmonology of Academy of Medical Sciences of Ukraine, Kyiv City Health Administration, Kyiv City Central TB Dispensary, Donetska Oblast Health Administration, Donetska Oblast TB Dispensary, WHO Office for TB Control in Ukraine, Royal Netherlands Tuberculosis Association (KNCV), Royal Tropical Institute of Netherlands (KIT), the World Bank TB/HIV/AIDS Control Project, Ukrainian Red Cross Society, NGO Medical Information and Analytic Center "Vector" (Kyiv), NGO Center "Health of Region" (Donetska).

<b>Project Location:</b>	Donetska Oblast and Kyiv City. - An additional oblast will be selected during the third year.
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**Grant Funding Information:**

<b>USAID Funding:(US \$)</b>	\$1,500,000	<b>PVO match:(US \$)</b>	\$410,000
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**Target Beneficiaries:**

Type	Number
New TB patients in project sites	Approximately 6,000 per year

**Beneficiary Residence:**

Urban/Peri-Urban %	Rural %
Approximately 80%	Approximately 20%

**General Strategies Planned:**

Advocacy for health legislation reform  
Consensus-building on design and implementation of a revised TB surveillance system  
Training and ongoing support to Level I and II laboratories  
Design and introduction of a quality assurance program for TB diagnosis  
Close collaboration with national and international TB program implementers  
Dissemination of essential, up-to-date TB literature  
Design and implementation of a comprehensive behavior change approach aimed at health care providers, TB patients, the general public, and selected populations-at-risk  
Provider training

**M&E Assessment Strategies:**

Cohort analyses  
Lab panel testing  
Surveillance data monitoring  
KPC surveys  
Health facility assessments  
Pre- and post-training questionnaires

**Behavior Change & Communication (BCC) Strategies:**

TV and radio spots aimed at the general public  
Education materials for patients, families, and the public  
Job aids for health workers  
Training to improve client-TB provider interaction  
Dissemination of evidence in support of technical norms

**Capacity Building Targets Planned:**

PVO	Non-Govt Partners	Other Private Sector	Govt	Community
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		(None Selected)	National and Regional MOH Health Facility Staff	
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### **Interventions:**

#### *Policy/Advocacy Reform:*

- Convene Policy and Advocacy Consultative Group to advise governmental partners on legislative reform
- Monitor legislative development related to TB control
- Distribute/facilitate access to key technical literature on TB control
- Convene at least two national technical symposia for TB authorities and specialists
- Conduct follow-up policymaker survey

#### *Laboratory Strengthening:*

- Convene Working Group on TB laboratory QA/QC in Donetska
- Design QA/QC systems that will support all lab levels
- Develop training curricula and methodological recommendations regarding QC/QA of smear microscopy for TB diagnosis
- Introduce QC of direct smear microscopy in Level I laboratories of the general health care system in Donetska Oblast starting project Year 1
- Introduce interlaboratory QC of smear microscopy in Levels I and II laboratories in Donetsk City and Donetska Oblast during project Years 1, 2, and 3
- Introduce QA/QC of culture tests for MTB starting project Year 2
- MOH to introduce an electronic system of surveillance of multidrug resistant forms of TB in the context of the pilot project being implemented in Donetska Oblast
- In cooperation with the Center for Microbiological Diagnosis of TB and chief of the National Reference Laboratory (NRL) for Microbiological Diagnosis of TB, develop methodological recommendations regarding QC and QA of culture and drug sensitivity testing at the laboratories of oblast level.

#### *TB Surveillance Strengthening:*

- Revise, test, introduce, and monitor use of recording and reporting forms and guidelines in collaboration with all stakeholders
- Conduct training on use of new recording and reporting forms in up to five regions
- Design, test, introduce, and monitor use of electronic version of the TB EMIS
- Conduct training on the use of data for problem identification, program monitoring, and strategic planning

#### *Behavior Change:*

- Conduct training in IEC materials development
- Revise existing and develop additional print materials on TB for patients, families, populations at risk, and the general public in Kyiv and Donetska Oblast
- Revise and re-broadcast TV and radio spots aimed at general public in Kyiv and Donetsk
- Expand existing curriculum and implement training for TB providers to improve counseling and communication skills and incorporate HIV Voluntary Counseling and Testing (VCT)

- Investigate and document factors affecting patient health-seeking behavior and adherence to treatment
- Undertake baseline and follow-up KAP surveys

## C. Description of DIP Preparation Process

### 1. Steps Taken to Prepare the DIP

PATH completed the following steps in preparing the DIP:

- **Review of project documents.** PATH reviewed the original Technical Proposal, Cost Proposal, Project Budget, Guidance for DIPs for PVO Child Survival and Health Programs FY 2004, and technical reference materials on tuberculosis.
- **Site selection rationale and confirmation.** For the original proposal, PATH decided to focus its activities in Donetska Oblast, Kyiv City, and one other region, to be selected in the project's second year. Donetska Oblast was selected because WHO, with USAID mission funds, has been working there for the last three years to demonstrate the effectiveness of DOTS. PATH was a subcontractor to WHO for this work. When the proposed project was being formulated, WHO specifically requested that PATH seek support to supplement this ongoing effort, with specific focus on laboratory quality control, public awareness, patient education, surveillance, advocacy, and community mobilization. Kyiv City was selected because the municipal TB dispensary has been working to implement its own DOTS program for several years and needs support. Some of this support is being provided by KNCV, but this project ends in December 2004. PATH was seen as a viable entity that could carry forward some of the interventions initiated by the City TB Dispensary with KNCV technical assistance, as well as play a coordinating role among WHO, KNCV, the NTP, the MOH, and other key agencies involved in TB in Ukraine. During the DIP preparation phase, the appropriateness of these sites was confirmed.
- **Review of policy documents.** We reviewed and analyzed the following legislative and policy documents: Laws of Ukraine, Presidential Decrees, administrative regulations of the Cabinet of Ministers, and Ministry of Health (MOH) Regional Health Administration orders related to TB control.
- **Meetings with health authorities.** We held meetings and consultations with authorities of the Donetska Oblast and Kyiv City Health Administrations, with chiefs of rayon and city health departments, and with chief doctors of central rayon/city hospitals. At the national level, the team met with health authorities representing the Department of Prevention of Infectious Socially Dangerous Diseases of the MOH of Ukraine, and the F.G. Yanovsky Institute of Tuberculosis and Pulmonology (ITP).
- **Meetings with international collaborators.** PATH works closely with the WHO Office for TB Control in Ukraine, which is implementing, "Development and Implementation of the

Modern Effective Strategy of TB Control in Donetska Oblast Based on DOTS Principles, Recommended by WHO and Adapted to Ukrainian Conditions.” We have also met with staff of the recently initiated KNCV/KIT project, “TB Control and Prevention in Kyiv City, Ukraine;” as well as representatives of USAID, international and national NGOs and the TB/HIV/AIDS Control Project funded by the World Bank. PATH’s policy specialist reviewed documents from the World Bank project, including the Project Appraisal Document, the Loan Agreement, and the Plan of Purchase and Distribution of Laboratory Equipment, among others.

- **Site visits.** PATH staff and consultants visited hospitals and TB dispensaries in the pilot regions and organized meetings with chief doctors, doctors, and patients.
- **Baseline survey data collection.** To establish baseline measures for the project, three surveys were conducted: (1) a policymakers survey among health authorities, chief doctors of TB hospitals, and decision-makers; (2) an exit survey among patients leaving TB facilities to evaluate provider performance; and (3) a survey of TB knowledge, attitudes, and practices (KAP) among the general public as well as among specific target populations (e.g., food bank clients, open market vendors, and newly released prisoners). In addition, focus groups discussions among people living with HIV or AIDS (PLHA) were conducted. All assessments are provided in Attachment A.
- **Seminars.** The team took part in various conferences, seminars, and roundtable discussions on TB control in Ukraine, including meetings of the quarterly Steering Committee of the KNCV/KIT project.
- **Literature review.** Project staff reviewed up-to-date literature on TB epidemiology and HIV/AIDS control Ukraine and around the world. In addition, we reviewed a range of TB resource materials from the WHO and STOP TB websites.
- **Review and analysis of previous research.** PATH staff reviewed the formative research carried out in 2002 in the context of the WHO/PATH Pilot Project on DOTS strategy implementation in Donetska Oblast, as well as the health education and information materials developed for that project.
- **Stakeholders meeting.** On March 18, 2004, PATH convened a one-day meeting of regional and national stakeholders to present our baseline data and to discuss PATH’s proposed implementation plan. Approximately 40 people attended the meeting, which comprised presentations, question and answer, and small group discussions on each of the four main project components: policy reform and advocacy, laboratory strengthening, surveillance strengthening, and behavior change communications. Meeting participants were extremely engaged and provided PATH with thoughtful and constructive feedback, which has been incorporated into this document.

## **2. Description of Project Start-up Activities and Baseline Data Collection Methods By Component**

**Policy and Advocacy Support.** During assessment trips and visits to TB and primary health care facilities, PATH's policy specialist, Dr. Anatoliy Tsarenko, met with chief doctors and key clinical specialists regarding the regulatory environment for TB control in Ukraine. Specifically, PATH was interested in their opinions regarding which regulatory and legal documents need revision to conform to international TB control standards. In addition, Dr. Tsarenko participated in various roundtable meetings related to TB legislative reform, and, from November 2003 through April 2004, he attended all of KNCV/KIT's Steering Committee meetings and consulted with KNCV in-country and Netherlands-based staff. These meetings focused on how best to coordinate our respective activities and on strategies for modifying MOH and Kyiv City Health Administration orders so that they better support the implementation of the WHO-recommended TB control strategy in Kyiv City.

As part of baseline data collection, Dr. Tsarenko also reviewed and analyzed a range of legislative and policy documents concerning TB control in Ukraine, including TB-related laws, Presidential Decrees, administrative regulations of the Cabinet of Ministers, and Orders of the MOH and the Donetska Oblast and Kyiv City Health Administrations.

The PATH team conducted a survey in February and March 2004 among 47 national and regional politicians, health authorities, chief doctors of TB hospitals and primary health care facilities, and TB clinical specialists in Kyiv City, Donetsk City, and selected rayons of Donetska Oblast. The survey included questions about regulatory and legal documents that need modification, whether existing regulatory legislation is sufficient for integrated management of HIV/TB co-infected patients, perceived barriers to TB prevention in Ukraine, and respondent opinions regarding the appropriateness of the WHO-recommended strategy on TB control for Ukraine (The questionnaire and results are included in Attachment A).

**Laboratory Strengthening.** PATH laboratory experts first assessed the laboratory quality assurance initiatives of KNCV and WHO to ensure that our further efforts would be coordinated and compatible. PATH held numerous meetings with key personnel from various TB agencies, including visiting KNCV laboratory consultants, Stella Van der Beers and Arend Kolk. KNCV shared project materials, including a draft project report on "Prevention and Control of TB in Kyiv City, Ukraine," the KNCV project workplan, and their workplan for the Kyiv laboratory network. In subsequent meetings, PATH staff discussed strategies for collaboration with KNCV/KIT and WHO.

PATH also solicited detailed feedback from local health authorities as well as from KNCV and WHO regarding QA procedures for relevant facilities in Kyiv City and Donetska Oblast. PATH's Laboratory Quality Control Specialist, Dr. Tamara Ivanenko, met with Drs. Kestutis Miskinis, Irina Dubrovina, and Igor Raykhert, from the WHO Office for TB Control in Ukraine, to discuss TB laboratory monitoring results in the city of Donetsk and Donetska Oblast.

Dr. Ivanenko also reviewed documents regulating Ukraine's TB laboratory service, including the Law "On TB Control in Ukraine," the National TB Control Program 2002-2205, and MOH orders such as the "Approval of Instructions for Health Care to Patients with TB and Non-specific Pulmonary Diseases" (№ 499 dated 28.10.2003) and "On Approval of instructions for bacteriological diagnosis of TB infection" (№ 45 dated 06.02.2002). The team also reviewed TB laboratory service recording and reporting forms.

In addition, PATH reviewed existing WHO training materials, including a video, and a report on laboratory work done in Donetsk City and Donetska Oblast in 2001- 2003. The team reviewed the list of equipment that WHO supplied to laboratories and the list of trainings conducted for laboratory staff. Additional WHO documents that were reviewed included a report on a WHO mission to assess TB surveillance in Ukraine, an assessment on good laboratory practice (GLP) conformity at the Donetska Oblast TB Dispensary laboratory (conducted by Dr. K. Feldman), and the WHO "Protocol for introduction of effective strategy to control TB in Donetska Oblast of Ukraine." Additionally, the PATH team reviewed the purchase and distribution plan for clinical and diagnostic laboratory equipment to general health care service labs, the funds for which are being provided by the World Bank loan.

Between November 2003 and March 2004, PATH conducted a series of facility visits to assess the quality of procedures for AFB microscopy and culture identification. Specifically, the PATH team, with support from US-based laboratory specialist, Carolyn Wallis, used a structured interview guide to undertake laboratory facility assessments in Kyiv City and selected locations in Donetska. To evaluate the existing network of TB services, the team visited 11 Level I laboratories, 5 Level II laboratories, 2 Level III laboratories, and the Center for Microbiological Diagnosis of TB at the Institute of Tuberculosis and Pulmonology (ITP). The team discussed laboratory service-related issues with chief doctors from primary health care facilities and from TB services, including laboratory chiefs, laboratory doctors, and laboratory technicians.

Finally, PATH staff conducted a rapid review of new or emerging TB detection methods that potentially could be appropriate for use in Ukraine. This process included a literature review as well as consultations with international experts.

**TB Surveillance Strengthening.** During the start-up phase, the team held many discussions and interviews with health and TB authorities and TB medical professionals from the national, oblast, rayon, and territorial administrative levels. The team also reviewed Ukraine's routine scientific and popular media publications regarding the epidemiological situation of TB in Ukraine. PATH's TB surveillance specialist, Dr. Andrei Dadu, analyzed the legislative base concerning management information systems (MIS) and conducted consultations and negotiations with local TB authorities as well as with local and international partners regarding necessary research.

To more specifically define the objectives for implementing an appropriate TB MIS for the NTP, project staff evaluated the current MIS in Donetska Oblast and Kyiv City. The objectives of the evaluation were to describe the current TB reporting and recording system in Ukraine required by the MOH, determine the adequacy of surveillance capacity for TB control in Donetska Oblast and Kyiv City as pilot sites for DOTS implementation and identify the possibilities for

developing and promoting implementation of an electronic MIS.

Dr. Dadu conducted individual interviews to gather data on the current NTP reporting and recording system (data collection and reporting staff, data collection points, data tracking procedures and frequency, and use of tools, including equipment and electronic applications), and on the health service delivery structure for TB control.

To optimize coordination among project partners, PATH's TB team worked with the WHO Office for TB Control and with KNCV/KIT project staff to create a weekly discussion group on TB surveillance for this planning phase. This resulted in a draft set of new recording and reporting forms and guidelines for the NTP which were presented to MOH and ITP authorities for evaluation and feedback.

**Behavior Change Communication.** During the start-up phase, PATH staff met with Donetsk TB health authorities to assess how local services have used the educational materials from the previous pilot project and to determine the need for additional educational materials and related activities. Staff also met with representatives of the World Bank Loan Project to explore their planned activities in public awareness. The BCC project component was presented at the quarterly Steering Committee meeting organized by KNCV/KIT and at a roundtable discussion organized by KNCV for representatives of charitable organizations working in TB care.

During this period, PATH staff also prepared a protocol for the baseline research and released a tender to recruit a research firm. In preparation for the baseline survey the team developed and pretested a survey questionnaire aimed at the general public and several specific sub-populations, and a focus group discussion guide for research with PLHA. The survey instrument covered topics ranging from knowledge, attitudes, and TB-related health practices to preferred sources of information. In addition, an exit survey was designed to assess patient satisfaction with TB provider performance. The exit survey investigated clients' assessment of providers' interpersonal communication skills, quality and thoroughness of information, assurance of confidentiality, and impact of the presence of nurses.

### 3. List of Staff, Partners, and Stakeholders Who Participated in Planning

Name	Position, organization	Activities	Days
<b>PATH Team/Kyiv</b>			
Anatoliy Tsarenko	Program Manager	Meetings, consultations and brain storming exercises	100
Katya Gamazina	BCC Program Officer, Deputy Country Program Leader	Meetings, consultations and brain storming exercises	50
Andrew Dadu	MIS Program Officer	Meetings, consultations and brain storming exercises	85
Tamara Ivanenko	Lab QC and QA Program Officer	Meetings, consultations and brain storming exercises	90
Natalya Zaika	BCC consultant	Meetings, consultations and brain storming exercises	40
<b>PATH Team/Seattle</b>			
Amie Bishop	Senior Program Officer, Ukraine Country Program Leader	Meetings, consultations and brain storming exercises	52
David Mercer	Senior Program Officer –Children’s Vaccine Program	Meetings, consultations and brain storming exercises	1
Siri Wood	Program Officer - Communication for Social Change	Meetings, consultations and brain storming exercises	21
Svitlana Okromeshko	Program Associate - Reproductive Health Strategic Program	Meetings, consultations and brain storming exercises	10
Deborah Burgess	Senior Technical Officer - Diagnostics Development Team Leader	Meetings, consultations and brain storming exercises	4
Carolyn K. Wallis	Consultant, Microbiology	Meetings, consultations and brain storming exercises	10
<b>WHO Office for TB Control in Ukraine</b>			
Kestutis Miskinis	TB Medical Officer, Head of Office	Meetings, consultations and brain storming exercises, member of the Project Technical Advisory Group (PTAG)	
Igor Raykhert	Monitoring Assistant	Meetings, consultations and brain storming exercises, member of the PTAG	
Irina Dubrovina	Training Coordinator	Meetings, consultations and brain storming exercises, member of the PTAG	
<b>USAID</b>			
Olena Radziyevska	Health Specialist/Office of Health and Social Transition, USAID Mission	Meetings, consultations and brain storming exercises	
Nancy Godfrey	Director/Office of Health and Social Transition, USAID Mission	Meetings, consultations	
Emily Wainwright	Health Advisor/Global Health Office	Meetings, consultations	
Julia Wallace	TB and Infectious Disease Advisor, Europe and Eurasia	Consultations	
<b>KNCV/KIT "Tuberculosis Control and Prevention in Kyiv City" Project funded by European Union</b>			
Jaap Veen	Senior Consultant Tuberculosis	Meetings, consultations	
Epcó Hasker	Project Manager	Meetings, consultations	
Yuriy Chechulin	Technical Officer	Meetings, consultations	
Stella van Beers	Epidemiologist	Meetings, consultations	
Arend Kolk	Biochemist, Lab Specialist	Meetings, consultations	
<b>World Bank Project “Control on TB and HIV/AIDS in Ukraine”</b>			

Vladimir Romaniv	Team Leader	Meetings, consultations
Alexandr Gunchenko	TB/HIV/AIDS in Prisons	Meetings, consultations
<b>Ministry of Health of Ukraine</b>		
Tatiana Alexandrina	Head of the Department of Prevention of Infectious Socially Dangerous Diseases	Meetings, consultations
Irina Dahniuc	Chief of TB Sector, Leading Specialist of the Department of Prevention of Infectious Socially Dangerous Diseases	Meetings, consultations
<b>F.G.Yanovsky Institute of Phtyisiology and Pulmonology of Academy of Medical Sciences of Ukraine</b>		
Yuriy Feschenko	Director	Meetings, consultations
Vasiliy Melnyk	Deputy Director	Meetings, consultations
Alexander Zhurilo	Head of Center for TB Microbiological Diagnostics	Meetings, consultations
Anna Barbova	Head of Bacteriological Laboratory	Meetings, consultations
Katerina Chernushenko	Head of Immunological Laboratory	Meetings, consultations
<b>Donetska Oblast Health Authorities</b>		
Alexander Anischenko	Head of Donetska Oblast Health Administration	Meetings, consultations
Gennadiy Nefedov	Head of Donetsk City Health Department	Meetings, consultations
Vladimir Udodov	Chief Doctor, Donetska Oblast Health Center	Meetings, consultations and brain storming exercises, member of the PTAG
Nikolay Grazhdanov	Head of Donetska Oblast HIV/AIDS Center	Meetings, consultations
Vjacheslav Petrachenkov	Chief Doctor, Donetsk City Health Center	Meetings, consultations and brain storming exercises, member of PTAG
Ljudmila Konovalova	Head of Kramatorsk City Health Department	Meetings, consultations, member of PTAG
Valentina Gika	Chief Doctor, Shahtarsk City Hospital	Meetings, consultations, member of PTAG
Yuriy Lazarev	Chief Doctor, Krasnoarmeysk City Hospital	Meetings, consultations, member of PTAG
Nikolay Batig	Chief Doctor, Mariupol City Health Center	Meetings, consultations and brain storming exercises, member of PTAG
Elena Gavrilishina	Chief Doctor, Shahtarsk City Health Center	Meetings, consultations, member of PTAG
Elene Tregubova	Head of Laboratory, Shahtarsk City Central Hospital	Meetings, consultations
Valentina Pozhyvilova	Head of Laboratory, Mariupol City Hospital #1	Meetings, consultations
Tatiana Lebedeva	Head of Laboratory, Mariupol City Hospital #2	Meetings, consultations
Maria Kaunova	Head of Laboratory, Mariupol City Hospital #5	Meetings, consultations
Svetlana Tischenko	Head of Laboratory, Polyclinic #2, Holosiiv rayon, Kyiv City	Meetings, consultations
<b>Donetska Oblast TB Authorities</b>		
Oleg Karatayev	Chief Doctor, Donetska Oblast TB Hospital	Meetings, consultations and brain storming exercises, member of PTAG
Ana Konovalova	Deputy Chief Doctor, Donetska Oblast TB Hospital, Head of Statistical Department	Meetings, consultations and brain storming exercises, member of PTAG
Elena Yann	Head of Laboratory, Donetska Oblast TB Hospital	Meetings, consultations and brain storming exercises, member of PTAG
Alexander Klochkov	Chief Doctor, Donetsk City TB Dispensary	Meetings, consultations and brain storming exercises, member of PTAG
Svetlana Svetlichna	Chief Doctor, Mariupol City TB Dispensary	Meetings, consultations and brain storming exercises, member of PTAG
Vladimir Mozgoviy	Chief Doctor, Gorlovka City TB Dispensary	Meetings, consultations and brain storming exercises, member of PTAG



Ljudmila Balabanova	Bacteriologist of Laboratory, Donetsk City TB Dispensary	Meetings, consultations
Ljudmila Smagina	Chief Doctor, Shahtarsk City TB Dispensary	Meetings, consultations
Maria Anfalova	Head of Laboratory, Mariupol City TB Dispensary	Meetings, consultations and brain storming exercises
<b>Kyiv City Health Authorities</b>		
Valeriy Zboromirskiy	Chief Therapeutic, Kyiv City Health Administration	Meetings, consultations, member of PTAG
Victor Lozinskiy	Chief Doctor, Kyiv City Health Center	Meetings, consultations, member of PTAG
Vasiliy Kniazevich	Head of Desnianskiy Rayon Health Department, Kyiv city	Meetings, consultations, member of PTAG
Daniel Karabayev	Head of Dniprovskiy Rayon Health Department, Kyiv city	Meetings, consultations, member of PTAG
<b>Kyiv City TB Authorities</b>		
Leonid Turchenko	Chief Doctor, Kyiv Central City TB Dispensary	Meetings, consultations and brain storming exercises, member of PTAG
Natalia Filonenko	Deputy Chief Doctor, Kyiv Central City TB Dispensary	Meetings, consultations and brain storming exercises, member of PTAG
Natalia Goncharenko	Head of Laboratory, Kyiv Central City TB Dispensary	Meetings, consultations and brain storming exercises, member of PTAG
Katerina Polovko	Head of Laboratory, Kyiv City TB Dispensary #1	Meetings, consultations
Leonid Stadnik	Chief Doctor, Kyiv City TB Dispensary #1	Meetings, consultations and brain storming exercises, member of PTAG
<b>Others</b>		
Volodymyr Rudyi	Head of Secretariat, Committee for Public Health Care, Maternity and Childhood, Verkhovna Rada (Parliament) of Ukraine	Meetings, consultations
Tamara Skakun	Docent, Lab Training Department, Shupik Kyiv Postgraduate Medical Academy	Meetings, consultations
Georgiy Lipkan	Head of Lab Training Department, Shupik Kyiv Postgraduate Medical Academy	Meetings, consultations
Innesa Zaika	Associate Professor, Lab Training Department, Shupik Kyiv Postgraduate Medical Academy	Meetings, consultations
Alla Khabarova	Executive Director, National Committee of Ukrainian Red Cross Society	Meetings, consultations
Vera Milenko	Head of Kyiv City Committee, Ukrainian Red Cross Society	Meetings, consultations Member of PTAG
Liudmila Ovsiankina	Head of Donetsk Oblast Committee, Ukrainian Red Cross Society	Meetings, consultations Member of PTAG
Victor Serdiuk	Director, NGO Medical Information and Analytical Centre "Vector"	Meetings, consultations Member of PTAG
Boris Iotenko	Head, NGO Centre "Health of Region"	Meetings, consultations Member of PTAG

## D. Revisions

Very few revisions to the activities described in the proposal are needed and none substantially affect the budget.

The first revision relates to TB surveillance. Since the proposal was written, the World Bank loan for HIV/TB was approved. The World Bank project is responsible for equipping TB facilities and providing other financial support throughout the country. Given this, PATH will

share software, train specialists responsible for data entry and data analysis, and provide on-going technical support and maintenance to ensure that the TB MIS is employed as an appropriate and useful tool in the regions where the World Bank project is functioning. In addition, WHO has specifically requested that PATH extend the new MIS activities to Volynska and Kharkivska Oblasts as well as to Sevastopol City. Expanding the revised MIS system to these areas is feasible and cost-effective and responds to the expressed need of WHO in Ukraine.

PATH also proposes to introduce an electronic system of surveillance of multidrug resistant forms of TB in the context of the Donetska pilot project. Specifically, the cities of Mariupol, Gorlovka, and Donetsk will be involved. This will require training on data entry using information from the TB-06 form (referral for culture tests) and from the TB-11 form (quarterly results of susceptibility of MTB culture to TB drugs). The data will then be analyzed at the Donetska Oblast TB Clinical Hospital Laboratory.

Other revisions involve PATH's laboratory strengthening scope of work. Because KNCV has provided substantial technical assistance to TB laboratories in Kyiv City, PATH will scale back its planned involvement there and provide greater assistance to Donetska focusing more attention than was originally planned, for example, on QA for culture and drug sensitivity testing. PATH will still collaborate closely with KNCV on laboratory issues and specifically will track KNCV's inputs in Kyiv to ensure that PATH's assistance is consistent and complementary in Donetska. Second, since submitting the proposal in 2002, the evaluation results of PATH's rapid TB immunochromatographic test strip in Ukraine and in other sites suggested suboptimal performance, especially in HIV-prevalent settings. PATH, therefore, will not pursue further evaluation or introduction of this test in Ukraine. We will investigate other emerging or new TB diagnostic technologies and assess whether any could be reasonably evaluated in Ukraine or considered for possible future introduction.

## **D. Overview of the Local Context**

### **1. Overview of Epidemiologic Situation in Ukraine**

As is the case in many former Soviet states, TB has increased dramatically in Ukraine over the past 13 years following independence from the USSR. In 1990, Ukraine reported its lowest number of new TB cases in the modern era—16,465 cases for a rate of 32.0 cases per 100,000 population.<sup>1</sup> Since then, incidence has steadily risen each year to a high in 2003 of 77.5<sup>2</sup> per 100,000. Of the 37,097 new TB cases registered in Ukraine in 2003, 72 percent were among men. The proportion of notified cases among women (28 percent) has remained steady for the last 10 years but may increase as HIV rates in women rise (and as case detection improves).<sup>3</sup> The highest age-specific incidence rates are among individuals aged 40 to 49. The highest incidence rates in 2002 were reported in the oblasts of Khersonska (153.6 per 100,000); Mykolayivska (100.3); Kharkivska (96.8); Zaporizhska (96.2); and Luhanska (93.7), with rates all significantly

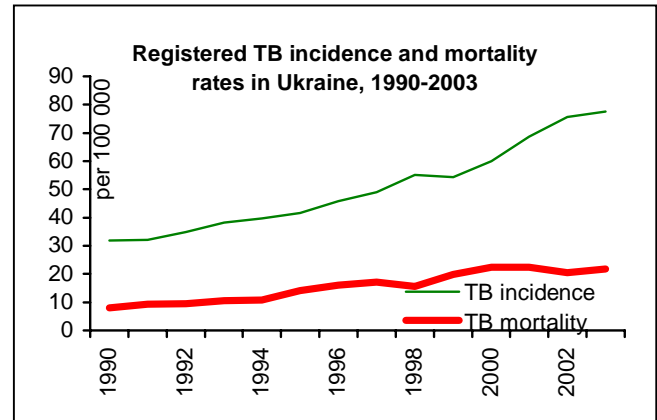
<sup>1</sup> Melnyk, V.P., Workshop national NTP managers, Budapest, October 2003.

<sup>2</sup> Feshchenko, Y.I., <http://www.ifp.kiev.ua/doc/news/daytub2004.htm>.

<sup>3</sup> Feshchenko Y., Melnyk V., Koblianska A., Laptieva N., Kucher T., *Monitoring TB Morbidity and Mortality among Different Age and Gender Groups in Ukraine in 1990-2000*, UDK:616.24-002.5-036.2-053 (477), 2001.

higher than for the whole of Ukraine.<sup>4</sup> The lowest incidence (37.8 per 100,000 population) was registered in Kyiv. In 2002 the highest prevalence rates were recorded in Khersonska Oblast (443.8); Donetsk (353.6) and Dnipropetrovska (350.9) oblasts. These rates were between 1.54 and 1.22 times higher than the average for Ukraine (287.4 per 100,000 population).

The mortality rate also rose as well during this period, from 8.1 per 100,000 in 1990 to 21.8 per 100,000 in 2003.<sup>5</sup> The highest age-specific mortality rates in 1999 were among people 40 to 49. High mortality rates are likely due to late detection (resulting from poor awareness of and accessibility to appropriate care and poor TB awareness among general providers), multidrug resistance, and, until recently, shortages of TB drugs.<sup>6</sup> The highest mortality rates were reported in the oblasts of Khersonska (47.3 per 100,000), Donetsk (31.3) and Odeska (29). About 33 percent of death cases occurred at home, and 15 percent occurred during the first year of case management. Nearly 9 percent of deaths due to TB disease were identified postmortem.<sup>7</sup>



In 2002, 95 percent of new registered TB cases were pulmonary TB, and 36 percent of these were smear-positive. Data from 1999 suggest that approximately 30 percent of all TB patients in Ukraine were in prison where infection rates are believed to be very high.<sup>8</sup> In 2002, an incidence rate of 4,585 cases per 100,000 was registered in the penitentiary system.<sup>9</sup>

Overall, epidemiologic data likely underestimate incidence because they do not include registered TB cases among the Ukrainian Army, Ministry of Internal Affairs and Security Service employees, or prisoners—populations served by separate health care systems. An additional complicating factor is that new TB patients can be registered both by the Sanitary Epidemiologic Stations (SES) and the regional or municipal TB dispensaries, and these databases are not well linked. Also, international TB case definitions are not used.

<sup>4</sup> Ibid.

<sup>5</sup> Lapteva, M.O., TB epidemiological situation in Ukraine, III<sup>rd</sup> Ukrainian's phthisiatricians and pulmonologists Congress, May 2003, <http://www.ifp.kiev.ua/doc/staff/staff.htm>.

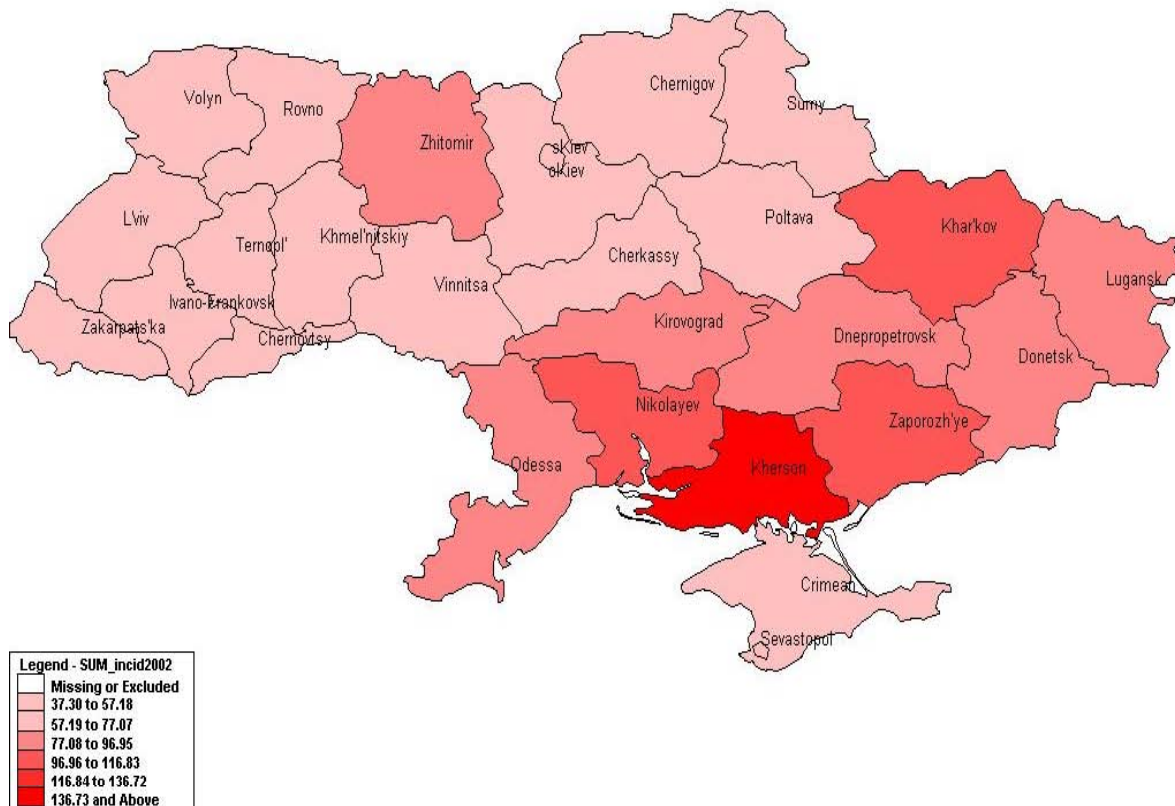
<sup>6</sup> Kucher, T., Laptyeva N., Antonenko E., Antonenko L., Nikiforova L., *Comparative Data on TB Incidence and TB Institutions' Effectiveness in Ukraine in 2000-2001*, the Academy of Medical Sciences of Ukraine, the Center of Medical Statistics, and the F. G. Yanovsky Institute of Tuberculosis and Pulmonology, 2002.

<sup>7</sup> Feschenko, Y.I., TB epidemiology in Ukraine during the last 3 years, 11/14/2000.

<sup>8</sup> Ukraine Ministry of Health, World Health Organization, and USAID/CDC. *Joint Review of Tuberculosis in Ukraine*, December 6-15, 1999.

<sup>9</sup> Melnyk, V.P., Workshop national NTP managers, Budapest, October 2003.

### Registered in 2002 TB incidence in Ukraine



As in all former Soviet countries, conventional TB case detection in Ukraine relies on active case-finding based on mass screening using miniature chest x-ray (fluorography). In 1996, the MOH ordered that all citizens over 15 years old undergo x-ray screening. Children under 15 are required to have an annual tuberculin skin test.<sup>10</sup> All individuals with suspected TB are referred to polyclinics or central rayon hospitals for chest x-ray and microscopy. Despite substantial evidence that x-ray screening is inefficient and extremely costly, most Ukrainian health authorities continue to advocate for them. The majority of TB cases are detected passively through self-referral.

Ninety to 95 percent of new TB patients are hospitalized for six to eight months. Ukrainian health authorities argue that hospitalization is needed to tailor the patient's treatment plan, determine how contagious the person is, provide the initial course of chemotherapy, and provide food for undernourished patients. Surgical treatment for forms of disease that respond poorly to conservative treatment is common. Preventive treatment (isoniazid or rifampicin for two to three months) is administered to family contacts of smear-positive patients, to children with strong tuberculin skin test reactions, and to children with skin test conversion.

<sup>10</sup> Ukraine Ministry of Health's Order #233 from 07.29.1996, *About approval of guidelines for medical and sanitarian help for TB cases.*

Since independence, much of the population has lost faith in the health system and is unable to afford the unofficial costs associated with services. Many people delay seeking health care because they lack money, they don't believe that TB services (diagnosis, treatment, care, TB drugs) are free of charge, they distrust doctors' qualifications, and they must endure long waits, limited polyclinic hours, and indifferent provider attitudes. Many are ashamed of having TB because of its association with marginalized populations.<sup>11</sup>

**AIDS Epidemic.** The first HIV cases in Ukraine were registered in 1987. Ukraine has seen the AIDS epidemic advance rapidly since independence in 1991, and it is the only country in Europe and Eurasia with an estimated one-percent prevalence rate among adults.<sup>12</sup> On December 31, 2003, 62,365 cases had been registered, including 3,590 deaths. About 10 percent of all HIV cases registered are among children under age 15. In 2003 the HIV incidence rate was 20.8 per 100,000 population.<sup>13</sup> Numerous experts fear that the real number of infections is actually around 500,000. While injection drug use is linked with over half of HIV infections in Ukraine, transmission via sexual contact is growing, and about 40 percent of known infections are among women.<sup>14</sup>

**TB-HIV Co-infection.** Most cases of TB-HIV co-infection are not detected due to substandard diagnosis and poor linkages between the HIV and TB systems, which are implemented vertically and remain very separate. Data about co-infection rates are unreliable, resulting in contradictions between official statistics and operational reporting. For example, the Ukrainian MOH reported 0.85 HIV-TB cases per 100 000 population, or a total of 408 HIV cases with TB infection in 2003. Operational data from 2003, however, suggests that there were 913 registered HIV-TB cases among the 36,471 registered TB cases in Ukraine.<sup>15</sup> The highest incidence rates of TB and HIV co-infection were registered in Odeska (9.1 per 100,000), Dnipropetrovska (6.8), and Donetsk (5.3).

**TB Drug Resistance.** National data regarding drug resistance in Ukraine do not exist. According to information provided by the ITP for 2002, drug resistance of any type was detected in 76 percent of all pulmonary TB cases.<sup>16</sup> The ITP also reported that from 2000 to 2002, the rate of multidrug resistance (MDR) grew from 32.5 percent to 57.6 percent among all pulmonary TB cases. Resistance to streptomycin appears to be most common (60-70 percent of all resistance). Resistance to isoniazid is believed to be higher than for rifampicin.<sup>17</sup> Other data sources suggest a different picture. For example, in 2001, Kyiv City reported a primary drug resistance (PDR) rate of 26 percent and a secondary drug resistance (SDR) rate of 15 percent among new pulmonary smear-positive TB cases. Among new cases that have PDR-TB, 2.9 percent have

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<sup>11</sup> PATH. Report of Formative Research, *Knowledge and Attitudes Regarding Tuberculosis Among Medical providers, Tuberculosis Patients, and the General Public in Donetsk Oblast*, August 2002.

<sup>12</sup> UNAIDS, World Health Organization. *AIDS Epidemic Update*, December 2001.

<sup>13</sup> Ukraine MOH website, <http://www.moz.gov.ua/en/main/siterubr>.

<sup>14</sup> Ukraine National HIV/AIDS Center, 2002.

<sup>15</sup> Alexandrina, T.A., Epidemiological situation regarding TB in combination with HIV and AIDS in Ukraine, *Ukrainian Journal of Chemotherapy*, #3-4, 2003.

<sup>16</sup> Feschenko, Y.I., Petrenko, V.M., Cherenenko, S.O., Epidemiology, diagnosis and treatment of drug resistance pulmonary tuberculosis; *Ukrainian Journal of Pulmonology*, 2002, #4.

<sup>17</sup> World Health Organization report on a joint review of tuberculosis in Ukraine, WHO, MOH of Ukraine, USAID, CDC, IFRC; December, 1999.

MDR-TB, while among those with SDR-TB, 1.8% have MDR.<sup>18</sup> Nevertheless, 26 percent of MDR-TB was registered among all new pulmonary TB cases. MDR resistance appears to be particularly common among marginalized social groups largely due to under-treatment, poor compliance, and treatment interruptions. Self-medication is common, as all drugs are available over the counter in pharmacies.

## 2. Health Service Delivery Structure for TB Control in Ukraine

Two key national structures currently responsible for TB control are the MOH (Department of Socially Dangerous Infections Diseases) and the F.G. Yanovsky Institute of Tuberculosis and Pulmonology Academy of Medical Sciences of Ukraine (AMS). The ITP operates under the AMS and develops and implements the National TB Control Program. Regional (oblast-level) and city/rayon TB dispensaries are supervised by the MOH and the oblast health administrations, which regulate the TB budget. Each oblast has an oblast TB hospital/dispensary, including clinical and diagnostic laboratories with bacteriological departments to diagnose TB. TB dispensaries, together with the SES, analyze oblast epidemiological data, plan and organize TB screening and immunizations, and provide laboratory diagnosis. Treatment for most TB patients is provided at dispensaries, specialized regional hospitals, or departments of multiprofile hospitals. At the district (rayon) level, health care is provided by a central rayon hospital and polyclinics, which have integrated TB dispensaries, TB daily hospitals, TB departments, or TB consulting rooms. Rural populations are served by the rayon and inter-rayon TB dispensary and clinical and diagnostic laboratories or centers for AFB microscopy (depending on the number of population and availability of resources). Outpatient clinics are used for treatment follow-up. Rayon TB facilities report to oblast TB dispensaries. In villages, patients are assessed at a feldsher/nurse point (FAP) or a village ambulatory, both of which serve as primary health care facilities.<sup>19</sup> According to 2001 data, there were about 3,000 TB specialists, 147 TB dispensaries, 98 TB sanatoria, and about 30,000 TB beds in dispensaries and hospitals.

Institution	Function
ITP	Management of National TB Control Program. National referral center for development of TB diagnosis and treatment methods; research training of clinicians and laboratory personnel; surveillance monitoring and supervision; and referral center for managing difficult TB cases.
Oblast TB Dispensary/Hospital	Management of Oblast TB Control Program. Clinic for 150–500 beds/patients and 100 – 300 phthisiatricians (TB specialists) and other specialists. Provides diagnosis, inpatient treatment and care, clinical consultations for TB patients and doctors, and surveillance TB monitoring and supervision for TB health service for oblast population. Maintains TB register for the region.
Oblast General Hospital	Outpatient (polyclinic) and inpatient general health services for the oblast population, including all medical and surgical specialties. Provides diagnosis, inpatient treatment and care, clinical consultations for patients and doctors, and surveillance monitoring and supervision for health service for oblast population.
Rayon/City TB Dispensary	75 - 150 beds and 50 - 100 phthisiatricians and other specialists. Provides diagnosis, inpatient treatment, and care for TB patients.

<sup>18</sup> Trnka, L., Leimane, V., Falzon, D., Miskinis, K., *Tuberculosis Surveillance Assessment Mission to Ukraine*, 20-24 May 2002.

<sup>19</sup> Kucher T. et al., 2002.



Institution	Function
Sanatorium	Rehabilitation of treated TB patients.
Rayon/City Central Hospital	Outpatient (polyclinic) and inpatient general health services for the rayon/city population. 150 - 500 beds with several medical and surgical specialties, including pulmonology and phthisiology. SES department for public health functions.
Rural/Country Hospital	10 - 30 beds. Provides primary health care for population of several divisions of a rayon and is staffed by divisional doctors and feldshers/nurses.
Feldsher post	Feldsher/nurse is the primary health care specialist. Provides basic primary health care for the population of a division. Maintains list of people to be screened for TB. Performs tuberculin tests and BCG vaccinations. Provides antirelapse treatment.

**TB and General/Primary Health Care in Donetska Oblast and Kyiv City.** The Donetska Oblast TB health care service structure comprises 45 rayon TB health facilities. They are responsible for TB case registration and management reporting procedures, treatment, rehabilitation, and TB prevention. Fifteen of these have inpatient departments, and the remaining 30 have only outpatient units (TB office in rayon central hospital or polyclinics). In total, the Donetska Oblast TB health care service has 3,000 beds, 500 of which are in the Oblast TB Hospital. Oblast TB hospital beds are divided into categories of pulmonary TB, extra pulmonary TB, surgery, and children and adolescents. Another 2,500 beds are divided among 15 rayon TB hospitals, which provide in-patient treatment for the intensive phase.

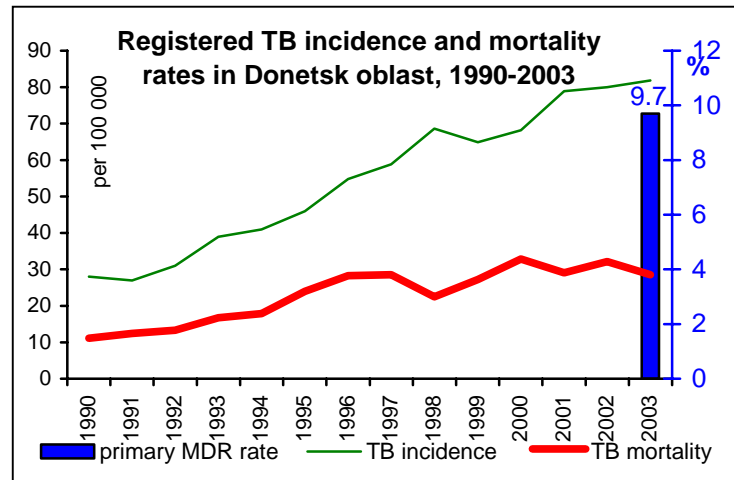
### **3. DOTS Coverage Estimates in Project Sites**

A DOTS implementation pilot project was established in Ukraine in 2001 in Donetska Oblast implemented by WHO and funded by USAID. A second DOTS pilot project was initiated in 2003 in Kyiv City supported by local government, funded by the European Union and implemented by KNCV/KIT. In addition, based on the clear need to adopt a standardized system across all regions of Ukraine as soon as possible, the Ukrainian parliament ratified a loan agreement with the World Bank in November 2003 for \$60 million for TB and HIV/AIDS control in the country.<sup>20</sup> The World Bank loan project is planned to continue through June 2007 and includes three major components: TB control, HIV/AIDS prevention and control, and TB and HIV prevention and control in prisons. The TB component budget is \$28.7 million.<sup>21</sup> These funds will be used to implement the MOH's "National TB Strategy Adapted to International Standards" and will strengthen the government's capacity both at the central level (MOH, ITP, and NRL), and in the country's 27 regions through support for training and education, improved diagnosis and treatment, public awareness, and monitoring and evaluation. The prison component is budgeted at \$12.7 million. It was designed as a separate component because of the institutional nature of the prison system which is a self-contained and centrally managed system.

<sup>20</sup> Law № 1287-IV, *Ratification of WB loan agreement for TB and HIV/AIDS control in Ukraine*, November 18, 2003.

<sup>21</sup> Report No: 25062 UA, Project appraisal document of a proposed loan in the amount of US\$60 million to Ukraine for a TB and HIV/AIDS control project, November 22, 2002.

Prior to DOTS implementation in Donetsk Oblast, TB incidence and mortality rates in Donetsk were 81.9 and 28.5 per 100,000, respectively. The primary MDR rate was 9.7 percent. As of the end of 2003, all TB cases (I-III categories) had been registered under the DOTS system. Cohort analysis data for 2003, however, is not yet available. Data from 2002 reported by oblast TB authorities indicated a treatment success rate (cure and treatment completed) among new smear-positive TB cases of 79.5 percent. Among smear-positive recurrent cases, the treatment success rate was 68 percent. Mortality and failure rates were 9.8 percent and 9.44 percent, respectively.



Neither DOTS coverage estimates nor cohort analysis data are available for Kyiv City at this time.

## E. Assessment Results by Project Component

### 1. Policy and Advocacy Support

The primary objective of the assessment for this component was to determine to what degree current legal and regulatory environment, including laws and ministerial and regional health administration orders, require reform so that legislative support for the WHO recommended strategy can be strengthened. Further, PATH sought to determine where and on what basis points of resistance to the WHO strategy existed among key decision-makers and specialists. PATH, therefore, undertook meetings and consultations with TB experts in Donetsk and Kyiv, an exhaustive legislative review, and survey research among policymakers and clinical specialists in Donetsk and Kyiv to solicit their feedback on which laws need reform and on their attitudes towards the WHO approach. In addition, project staff reviewed up-to-date literature on TB and HIV-TB co-infection in Ukraine and internationally, WHO TB advocacy documents and articles from the mass media and the Internet.

**Meetings and Consultations.** As has been noted, PATH's policy expert convened meetings with a broad range of experts and stakeholders. Based on these discussions, the MOH, the ITP, and the Donetsk Oblast and Kyiv City Health Administrations agreed to support PATH in implementing its project in the pilot regions. Further, they expressed their support of the involvement of family and primary health care doctors in TB case detection. This is very important for enhancing access to TB care for rural populations.

These discussions also confirmed, however, that resistance to the WHO strategy persists among some national and oblast TB and general health care authorities and among providers. ITP



authorities, for example, have expressed the following views in the mass media and at conferences:

- The Ukrainian TB health care system, based on the Soviet model, is the best in the world.
- The DOTS strategy may be good for Africa and Asia but not for Europe and Ukraine.
- If the DOTS strategy is implemented in Ukraine, it will destroy the country's TB health care structure and result in the unemployment of many TB doctors.

Concerns also were expressed that the DOTS-based recording and reporting system is too burdensome, especially in the face of substandard pay and benefits for TB professionals. Some chief doctors as well as other TB and general health care providers explain their resistance to DOTS by expressing concern that the outpatient (continuation) phase of treatment is ineffective. Further, because many TB patients are poor and have no money for adequate food, shelter, and clothing, they need to be hospitalized for the full period of treatment if they are to recover. In addition, many doctors doubted that TB patients would be able to adhere to the recommended treatment on an outpatient basis, and therefore, treatment would be interrupted.

**Legislative Review.** PATH's policy and advocacy specialist reviewed and analyzed the following TB-related legislative and policy documents. These documents are listed as part of the policymaker survey in Attachment A.

Of the laws and orders reviewed, only a few are truly consistent with international recommendations for TB control. The most up-to-date legislation is grounded in an August 20, 2001, President's Decree (N643/2001), "On National Program on TB Control for 2002 - 2005," in which the main components of the WHO strategy are endorsed. Among other points, this decree calls for centralized drug procurement, a functioning TB microbiology diagnostics reference center under the MOH, and provision of sputum microscopy and culture as well as capacity to determine TB drug resistance and maintain quality control at all general and TB facility laboratories. Further, the decree calls for diagnosis by sputum smear microscopy for all people with cough for three weeks or longer. Finally, the decree specifically calls for the development and introduction of "standard schemes (protocols) of directly observed TB treatment, quality standards of antibacterial therapy, and criteria for evaluation of TB treatment effectiveness." It is also important to note that during recent years the state budget of Ukraine has been including a special expense line item to purchase TB drugs and vaccines.

The other key legislation in support of the WHO strategy is the Law of Ukraine, "On TB Control," №2586-III of 05.07.2001. This law defines the legal, organizational, and financial basis for activities to be undertaken by various governmental bodies, enterprises, and institutions and organizations that should be directed at preventing emerging infectious diseases, as well as localization and stemming of epidemic outbreaks. It also defines rights, obligations, and responsibilities of legal entities and individuals in TB control. Article 3 of this law is particularly important as it calls for the state to recognize TB control as an integral component of policies related to social safety and national security. It further specifies the key components of TB prevention and states that each citizen has a right to free and accessible TB-related care.

Additional support for the WHO strategy was voiced on May 19, 2003, when parliamentary members, Cabinet of Ministers and MOH authorities, leading TB specialists, representatives from WHO, World Bank, EU, and others, and NGO members took part in parliamentary hearings on "The TB Epidemic in Ukraine and Ways to Overcome It." Hearing participants acknowledged the formation of a legal base that supports preventive activities and specifically referred to the law of Ukraine, "On TB Control." Hearing participants also expressed the opinion that the TB epidemic in Ukraine was largely the result of lowered standards of living and "sanitary education," insufficient or poor-quality nutrition among a significant portion of the population, increases in homelessness and unemployment, inaccessibility of health services and drugs, and the decay of health care system. Participants believed that "high-risk groups," consisting of prisoners, migrants, the homeless, and chronic alcoholics and drug users play a major role in spreading TB in Ukraine. Further, the participants cited numerous organizational shortcomings related to TB control. The following observations emerged from this hearing:

- The fight against TB has not yet become a priority social issue of state policy. Anti-TB measures, envisaged by various programs, are not fully implemented nationwide or locally. The Inter-agency Commission to fight TB, established within the Cabinet of Ministers, is not efficient enough.
- The penal system contributes significantly to the spread of TB; thousands of prisoners with active TB are released from prisons. There are many organizational shortcomings, particularly related to regular preventive medical examinations to detect TB.
- Health care financing is insufficient. This constrains the implementation of key activities envisaged by national and regional TB programs as well as introduction of new methods for early detection of TB.
- Compared with other health care settings, material resources and equipment in TB settings are the poorest.

On September 02, 2003, the MOH then passed Order #407, "About activities on performance of recommendations from Parliament hearings on the subject of the TB epidemic in Ukraine and ways of overcoming it." This document outlines key activities aimed at responding to the recommendations from the Parliamentary hearings. Activities #6, #15, and #19, described below, are relevant to the WHO TB control strategy.

Item №	Activities	Target date	Executors
6	To broaden to all regions of Ukraine the use of principles of the WHO-recommended strategy for TB control (DOTS), adapted to national conditions.	2004	Division for prophylaxis of infectious socially risky diseases, Reference-center for microbiological TB diagnostics of MOH of Ukraine, MOH of Autonomous Republic of Crimea, heads of oblast health administrations, head of the Sevastopol City Health Administration, and the Central Health Department and Medical Provision of the Kyiv City Public Administration.
15	To ensure practical application of contemporary microbiological methods of examination for patients, who apply to general health care facilities for early TB diagnosis. To regulate mandatory laboratory study of MTB susceptibility prior to applying medical treatment.	2003-2004	The MOH of the Autonomous Republic of Crimea, heads of oblast health administrations, the head of the Sevastopol City Health Administration, and the Central Health Department and Medical Provision of the Kyiv City Public Administration.
19	To ensure the performance of outpatient treatment of TB patients based on directly observed therapy administered by medical workers	2003	The MOH of the Autonomous Republic of Crimea, heads of oblast health administrations, the head of the Sevastopol City Health Administration, and the Central Health Department and Medical Provision of the Kyiv City Public Administration.

While the Presidential Decree and orders emerging from the Parliamentary hearings offer support to the WHO strategy other legislation is less clearly supportive. For example, legislation still exists calling for active population-based screening using fluorography (MOH Order #233, 07.29.1996). Other laws emphasize mandatory treatment and hospitalization. In particular, Article 28, “Hospitalization and Medical Treatment of Patients Who are Sick with Infectious Diseases and Who are Carriers of Pathogens of Infectious Diseases” of the Law of Ukraine “On Ensuring Sanitary and Epidemic Safety of the Population” states that, “In the event of refusal from hospitalization, individuals who are sick with extremely dangerous infectious diseases shall be subject to mandatory hospitalization, and persons who are carriers of pathogens of infectious diseases, and persons who have been in contact with them shall be subject to mandatory medical supervision and quarantine according to the established procedure.”

Article 12, “Treatment and medical (dispensary) surveillance of TB patients,” also states that “Treatment of TB patients is conducted under compulsory medical control with observance of the set treatment standards. Patients with contagious forms of TB, including those socially non-adapted, with accompanying chronic alcoholism, drug addiction and abuse, who evade from treatment and present a danger of spreading disease among the population, shall be subject (by court decision) to compulsory hospitalization in TB settings, as specified by local bodies of executive power.

At the same time, TB-related laws clearly defend the rights of TB patients to receive free health care and other benefits for the term of their illness.

Another example of contradictory legislation is found in the MOH order, “The TB Epidemic in Ukraine and Ways to Overcome It” of 02.09.2003, which obliges the authority of the TB health care system to establish departments separately for HIV-TB co-infected patients. This is in contradiction, however, with the Law of Ukraine “On Prevention of the Spread of AIDS and Social Support of Population” №1972-XII of 12.12.1991, which guarantees the anonymity of HIV/AIDS patients.

**Policymaker Survey.** PATH undertook a survey among 47 TB policy and decision-makers in Donetska Oblast and Kyiv City. Participants included regional politicians, health authorities, chief doctors from TB hospitals and primary health care facilities, and TB doctors from the oblast, city, and rayon levels. The survey contained questions about regulatory and legal documents that need improvement, whether existing regulatory legislation is supportive of the WHO strategy and sufficient for integrated management of HIV-TB co-infected patients, perceived barriers to preventing further spread of the TB epidemic in Ukraine, and opinions on WHO-recommended strategy on TB control in Ukraine. The questionnaire is included in Attachment A.

The policymaker survey instrument included ten questions in a checklist format and several open-ended questions regarding the respondents’ evaluation of the effectiveness of existing TB regulatory legislation, attitude toward DOTS, and suggestions regarding its implementation in Ukraine. The survey was conducted in February and March of 2004. Each questionnaire was marked with an ID number; names were not recorded so as to ensure confidentiality. Selected key findings are as follows:

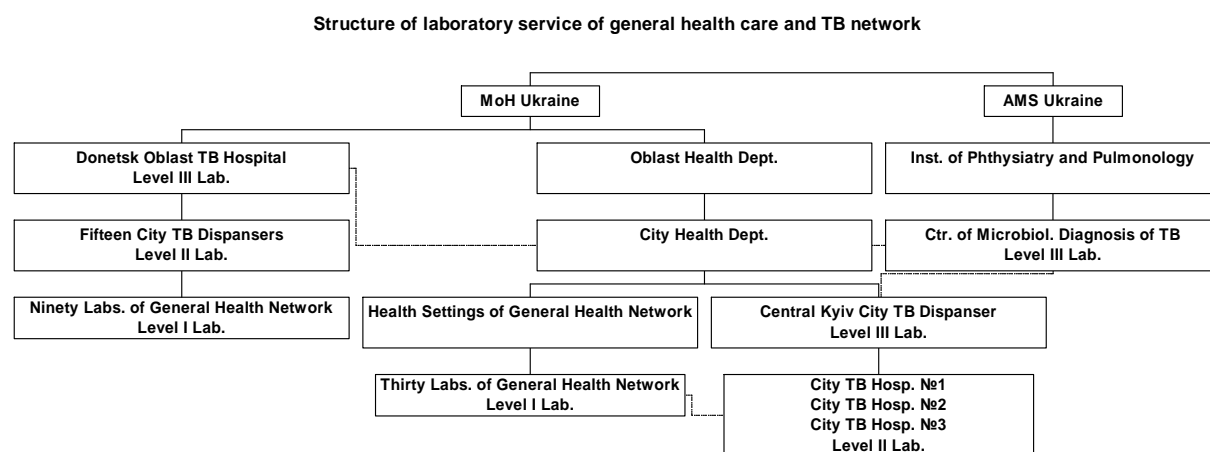
- When asked if they were satisfied with current laws regarding TB control in Ukraine, only ten percent responded affirmatively. Ninety percent responded that they are either not satisfied or not completely satisfied.
- Forty-five percent of participants responded that they believe it is possible to implement the WHO-recommended strategy on TB control in Ukraine, and another 40 percent said that it is possible with changes. Only six percent stated that they do not think it’s possible, and another nine percent said they were not sure.
- The survey asked respondents what the positive and negative aspects are of the WHO-recommended strategy on TB control. The respondents most often listed the following positive aspects: full supply of TB drugs (30 percent), standardized treatment scheme (24 percent), and cost-effectiveness of treatment (19 percent). Regarding negative aspects, 19 percent stated that treatment results are based only on the presence or absence of bacillus, which, in their opinion, is not sufficient.
- Respondents were asked to list the changes needed for the WHO-recommended strategy on TB control to be successfully implemented in Ukraine. A small proportion (15 percent) of respondents felt that The WHO-recommended strategy should be integrated into the NTP, with 13 percent suggesting that increases in government funding for TB control were needed at all levels. Another 13 percent suggested that raising salaries of TB medical personnel would both motivate existing professionals and attract new medical professionals to the specialty.

- Only 16 percent of the respondents felt that existing laws are sufficient for guiding management of HIV-TB co-infection, whereas 64 percent stated that the laws are insufficient. A further 20 percent were not sure.
- About one-third (31 percent) of respondents affirmed their interest in participating in a working group to develop proposals to the Verkhovna Rada (Parliament), the Cabinet of Ministers, and the MOH to improve regulatory legislation on TB control. Sixty-nine percent said they would not be interested.

## 2. Laboratory Strengthening

PATH's laboratory specialist, Dr. Ivanenko, visited 15 laboratories and TB facilities in Kyiv City and Donetsk Oblast as part of the baseline assessment. PATH lab QA consultant Carolyn Wallis, a mycobacteriology specialist, practicing in Seattle, Washington, joined her in evaluating over half of these. The PATH TB Team also met with chief doctors, local administrative authorities, and international collaborating agencies (KNCV, WHO, and the World Bank). Further, the PATH team interviewed 19 managers and leading specialists representing TB and general health care settings using a checklist questionnaire regarding conformity of regulatory documents, TB control practices, the current epidemiologic situation nationally and regionally, as well as current problems that hinder effective TB management.

**Laboratory Service Structure.** Ukraine has three levels of laboratory service, as described below:



The functions performed at each of these levels is presented in the following table:

Level	Description
<b>I</b>	<b>Peripheral level (labs of general/primary health care network).</b> <ul style="list-style-type: none"> <li>• Preparation of smears and their staining;</li> <li>• Ziehl-Neelsen microscopy, recording of results;</li> <li>• Internal quality control;</li> <li>• Organizational functions.</li> </ul>
<b>II</b>	<b>Regional level (labs of TB dispensaries).</b> Same as for peripheral level functions plus:

Level	Description
	<ul style="list-style-type: none"> <li>• Processing and decontamination of clinical specimens;</li> <li>• Isolation of <i>M. tuberculosis</i> cultures and identification of their types;</li> <li>• Preparation of reagents and supply to peripheral laboratories;</li> <li>• Managerial functions.</li> </ul>
III	<p><b>Central level (labs of some oblast TB dispensaries and ITP).</b> Same as for regional level plus:</p> <p><b>Technical functions:</b></p> <ul style="list-style-type: none"> <li>• Determination of sensitivity of isolated strains of <i>M. tuberculosis</i> to TB drugs;</li> <li>• Identification of other types of mycobacteria.</li> </ul> <p><b>Organizational functions:</b></p> <ul style="list-style-type: none"> <li>• Control and repair of technical condition of laboratory equipment and its repair;</li> <li>• Preparation and periodic update of methodic recommendations about bacteriological methods to diagnose TB;</li> <li>• Preparation and distribution of methodic instructions for the use of laboratory equipment;</li> <li>• Preparation and distribution of methodic instructions for supervision of work of bacteriological laboratories and QC;</li> <li>• Collaboration with the central level of the National Program for TB Control.</li> </ul> <p><b>Managerial functions:</b></p> <ul style="list-style-type: none"> <li>• Training of staff of regional laboratories;</li> <li>• Supervision of work of regional laboratories;</li> <li>• QC of microscopy and culture tests for regional laboratories.</li> </ul> <p><b>Investigation and disease surveillance:</b></p> <ul style="list-style-type: none"> <li>• Organization of surveillance of primary and acquired drug resistance of mycobacteria;</li> <li>• Scientific and practical investigations in laboratory network functioning, conducted in accordance with requirements and objectives of the National Program for TB Control.</li> </ul>

Smear microscopy aimed at detection of *M. tuberculosis* (MTB) plays a leading role in TB detection along with clinical and radiological chest examination. Screening at general health service and TB labs is based on WHO recommendations, provisions of the National Program of TB Control, as well as orders of the MOH, which regulate laboratory diagnosis to detect MTB. All laboratories are required to test sputum three times using Ziehl-Neelsen microscopy. Culture is performed at Level II and III laboratories only. Lowenstein-Jensen (enriched egg medium) and Finn media are the only media used in Ukraine. Sensitivity of MTB to TB drugs is determined using the absolute concentrations methods. Starting in 2004, however, the government will supply Lowenstein-Jensen media (HiMedia) for first- and second-line drugs.

**Donetska Oblast TB Service and Laboratory Structure.** In Donetska, the oblast TB hospital has a clinical and diagnostic Level III laboratory. The oblast also has ten Level II laboratories based in the bacteriological departments of the rayon TB hospitals. A total of 90 Level I laboratories (performing AFB microscopy) exist as part of the general health care network in the city and throughout Donetska Oblast.

**Kyiv City TB Service and Laboratory Structure.** Kyiv City is divided into ten rayons. The primary health care service, which consists of 10 rayon polyclinics, is responsible for TB case finding as is the TB departments of the two TB hospitals as well as the central city TB dispensary. The latter facilities are responsible for intensive phase treatment, while rayon outpatient TB specialists oversee case management during the continuation phase. More than 50 percent of all TB cases are managed in the Kyiv Central City TB Dispensary and in the two TB hospitals. The Kyiv Central City TB Dispensary has a Level III reference laboratory for

microbiological diagnosis of TB. In addition, there are three city TB hospitals with Level II clinical and diagnostic laboratories. Lastly, the 30 Level I laboratories belonging to the general health care network also conduct smear microscopy for AFB.

In both Kyiv City and Donetsk, the TB hospital clinical and diagnostic laboratories conduct culture tests of secondary flora and sanitary and bacteriological control of ambient air in selected rooms of health facilities. The latter procedure has no utility whatsoever.

**General Findings.** A common problem for all diagnostic health settings is chronically insufficient funding, resulting in the following technical problems:

- Many laboratories require repair and reconstruction.
- Equipment is obsolete (25-30 years old), worn out, and cannot ensure good-quality diagnosis.
- Laboratory equipment (autoclaves, thermal boxes, incubators, biological safety cabinets, centrifuges) are not maintained or repaired on a regular basis.
- Disposable supplies, nutrient media, barrier materials, and registers and referral forms are in poor supply.
- Financing for training, seminars, and conferences to enhance access to up-to-date information is inadequate.
- Methodological guidance from Level III laboratories is not provided.
- Regulatory and legal documents on standards for laboratory performance and functioning conflict or do not support the WHO approach to TB control.
- There are no unified standards or practices guiding QC and QA of TB diagnosis.
- Detection of MDR is not standardized and supplies for second-line drugs are not stable.
- Lack of standard forms for recording and reporting with instructions on how to use them results in improper reporting by laboratories.
- Patient selection criteria regarding sputum collection is unclear, resulting in an excess of smears that have little or no diagnostic value.
- Sputum specimens are often of poor quality (i.e., largely containing saliva) or of insufficient quantity (<1 ml).
- Procedures for transporting smears are not observed; for example, specimens are left unrefrigerated for over five days.
- Procedures for preparing and staining sputum smears are not observed and methods requiring centrifugation, such as the sputum enrichment method, are used even when proper centrifuges (i.e., 3,000 x g) are not available.

These conditions have resulted in very poor rates of detection. Prior to the introduction of the WHO strategy in Donetsk, for example, the general health laboratories were capable of detecting only 0.001 percent of AFB. Currently, throughout the oblast, approximately 2.7 percent of all smears being performed in general health services are AFB-positive. Further, about 60 percent of all TB cases detected in the oblast are initially diagnosed in general health system laboratories.<sup>22</sup>

Further, low salaries and poor safety standards deter new professionals from selecting TB as a specialty. This has resulted in shortages of skilled personnel, an increase in the average age of

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<sup>22</sup> Donetsk Oblast State Administration. Report on results of epidemiological monitoring of TB and the status of TB prevention and control activities in the oblast and regions for 2003. Report No.0118-263, February 9, 2004.

doctors and laboratory assistants, and chronic understaffing: not a single laboratory in the project sites has 100 percent of the required personnel on staff.

**Facility Assessments Methodology.** The facilities visited for the assessment include the following:

<b>Kyiv City</b>	Kyiv Central TB Dispensary Kyiv Outpatients' clinic No 2, Golosiivsky District Kyiv Clinical Hospital №10 Institute of Phthisiology and Pulmonology KNCV/KIT WHO Office for TB Control in Ukraine
<b>Donetska Oblast</b>	Donetska Oblast TB Dispensary Donetsk City TB Dispensary Gorlovka TB Dispensary Shakhtarsk City TB Dispensary Mayor of Shakhtarsk Mariupol City TB Dispanser (City TB dispensary) Polyclinic of Mariupol City Hospital (CH) #2 Level I laboratory at CH #2 Level I laboratory at CH #5 Polyclinic of CH #5 Level II laboratory at City TB dispensary Donetska Public Administration WHO Office for TB Control in Ukraine

To ensure that comparable information was collected at all site visits, the team developed and used a checklist tool that focused on the following elements:

- Overall facility condition;
- Collection and delivery of sputum (availability of special rooms, disposable containers, their labeling, person-in-charge, registration procedure, and transportation to laboratory);
- Availability and use of biological safety cabinets;
- Registration and preparation of smears (place, procedure, person-in-charge);
- Ziehl-Neelsen microscopy: stain preparation and quality, labeling of vessels, storage (place, procedure, quantity);
- Use of +/- slides during staining;
- Availability of working binocular microscopes and other essential equipment (centrifuges, refrigerators, incubators, autoclaves, microscopes, cold chambers);
- Availability of cold, hot water, sewage system, exhaust system of ventilation;
- Availability of disposable supplies: slides, media, tubes, stain, etc.;
- Instructions for and description of standard procedures;
- Maintenance of registers, compliance with standard procedures for reporting results;
- Storage and disposal of +/- slides;
- Quality control on (+) microscopy results; and
- Interlaboratory quality control.

**Facility Assessments Findings.** The quality of the various laboratories visited varied greatly. The assessment identified laboratories that are prepared to participate in an external assessment of quality of smear microscopy. Level II laboratories engaged in microbiological diagnosis of TB



are not ready to introduce external quality assessment due to lack of standard procedures, lack of proper equipment, and personnel shortages.

**The ITP Central Laboratory.** The ITP Level III (full service) TB laboratory is located in a new, state of the art facility with new equipment financed by the German Government. The laboratory staff are proficient and do excellent work. The room layout is good, with ample equipment and supplies for media preparation and complete reference services. The culture media used include Lowenstein + FIN2, Middlebrook 7H9, and manual BD MGIT broth for “special cases.” Commercially prepared primary and secondary drugs are tested and multiple control organisms are used. Laboratory staff claim that 80 percent of all strains tested are resistant to at least one drug. Frozen reference strains are properly maintained. Identification tests include growth rate, temperature differential, pigment studies, niacin, and sodium salicylate. All aspects of acid-fast smear microscopy and recordkeeping are excellent. Safety practices are outstanding, the work areas are clean, and the quality assurance program is good. The German Government had intended this to be the NRL for Ukraine; however, due to political complications, the laboratory is no longer going to be designated as the NRL and will, instead, be used for research. A new reference laboratory under the MOH is currently being constructed with World Bank funds.

**Kyiv City Facilities.** The Kyiv Central TB Dispensary Laboratory, which performs culture as well as acid-fast microscopy, is located in an old facility that requires extensive renovation. Much of the equipment is old and has not been well maintained. Safety and containment practices need to be upgraded. KNCV has been very active in providing support and training in several Kyiv TB laboratories as part of its pilot DOTS project initiated in Kyiv City in November 2002. Staff at this facility have designed, with KNCV assistance, a five-day laboratory training course to train other local laboratory staff every two weeks. The outpatient clinic No. 2 TB laboratory performs acid-fast microscopy only and is also located in an older facility. Equipment such as centrifuges and slides are inadequate, but a good microscope is available. Safety and containment practices should be improved. The Kyiv Clinical Hospital No.10 laboratory performs acid-fast microscopy only and is similar to the laboratory described above. Due to the low quantity of specimens processed per week, they are unlikely to be able to maintain proficiency and should consider discontinuing acid-fast microscopy service and send specimens out to the reference laboratory, when they are ready. To date, the KNCV/KIT program has provided training only to Level I laboratories and attention has been given to QC of smear microscopy. This issue has not been addressed, however, in Level II or III laboratories.

During visits to Level I laboratories, the team also noted that disposable containers for collecting sputum were not available and that referral forms were not standard. For example, information such as specimen number (1, 2, or 3), patient's diagnosis, the category, etc. were not included on these forms. Apparently, not all general doctors (“therapists”) have been trained in the proper selection of patients or in preparation for sputum collection. Laboratories had no positive/negative slides to control the quality of staining. Doctors have WHO materials, which they received during the KNCV training. Arguments in favor of the sputum collection procedure being done by a laboratory assistant, with the doctor addressing positive results only, were not acceptable.

**Donetska Oblast Facilities.** WHO has sponsored training and provided equipment in Donetska Oblast where a remarkable level of quality, consistency, organization, and efficiency in the laboratories of Donetska, Shakhtarsk, and Gorlovka now exists. All laboratories use good quality Olympus microscopes, have WHO logbooks and registers, and post the same procedures appropriately. The team observed that organization, safety practices, standard operating procedures, standard reporting, training, records, and quality control procedures appear to have been implemented more consistently and developed to a higher level in Donetska Oblast than in Kyiv, with the exception of the ITP Laboratory.

The Donetska Oblast TB Hospital employs 480 physician providers. The chief doctor, Dr. Oleg Karatayev, has begun developing a DOTS-Plus program, with hopes that the MOH will support it. He would like his facility to serve as the training center for Donetska and two other oblasts on TB, HIV, smoking cessation, and drug abuse. The hospital's laboratory performs cultures and susceptibility testing with appropriate control strains. Specimens are collected in a separate area with safe transport in carriers lined with disinfectant soaked cloth. The laboratory processes 50-70 specimens per day and has a centrifuge that only spins four tubes at a time, with no bucket covers. There are two biological safety cabinets (one class I and one class II) that are relatively new and are being used properly. Staff are proficient and generally practice good containment and safety procedures. They have an efficient, well-organized operation with the good beginnings of a QA program. They need a new, safer, and more effective centrifuge and could use additional staff. This laboratory could become a reference laboratory for eastern Ukraine. The laboratory is properly equipped (with WHO support), although the facility needs repair and the staff need more advanced training in making bacteriological diagnosis and testing for drug resistance.

The Donetsk City TB Dispensary laboratory serves separate polyclinics for children and adults and a 480-bed hospital. It has a good training room and a locked TB lab with separate access from the general laboratory. The volume of specimens received for direct smear is only 15-20 per day. The laboratory supervisor is overstretched, as she additionally oversees the 19 laboratories that have been implementing the WHO strategy and receiving WHO equipment, supplies, and training. Workflow and safety practices are good. Quality control is well developed, with control smears used and recorded, all positive smears and a sample of negative smears double-read, and smear examination time is defined (15 minutes/smear). They need a centrifuge to perform concentrated specimen smears.

Three laboratories of the general health care system of Donetsk City and bacteriological laboratory of the city TB dispensary were found to be properly equipped to follow standard procedures. In these laboratories, all procedures had been standardized—from collection and delivery of specimens to reporting of test results.

The Gorlovka TB Dispensary laboratory processes around 90 specimens per day and performs culture as well as acid-fast microscopy. They have received excellent training from WHO as shown by their overall high-quality work and documentation. Safety measures and practices are also good. They need some new equipment and supplies, especially, new slides and a centrifuge.

The Shakhtarsk City TB Dispensary laboratory is in a remote location and is an old facility in a state of complete disrepair. The laboratory concentrates 15-20 specimens per day in 15 ml glass centrifuge tubes spun at 1,500 rpm, which produces a culture rate lower than the smear-positive rate by a ratio of <1:2, respectively. Specimens are collected and transported appropriately, then handled in a homemade biological safety cabinet/box with exhaust that appears to function adequately, although airflow is not monitored. Equipment temperatures are not always recorded. The fundamentals of a QC program are in place, despite poor equipment and conditions, and positive- and negative-control smears are used. Staff received WHO training, but this is not documented, and service could be improved with support. WHO did not supply this laboratory with equipment and supplies. Cultures and susceptibilities are currently done using Lowenstein media prepared from dehydrated powder and no control strains. A doctor visits weekly to read the susceptibility results. The staff understand that this practice is inadequate for achieving reliable results, and they plan to discontinue both culture and susceptibility testing and instead send out specimens to a reference laboratory. New slides are used and smear preparation, staining, and examination is performed correctly. Stain quality is excellent.

Mariupol is served by a city central TB dispensary and two rayon dispensaries as well as by a 50-bed day hospital. In the central city TB dispensary, 70 beds are allocated for newly identified patients, 70 beds for recurrent cases, 70 beds for chronic patients, and 70 beds for the diagnostic unit. Workers were trained in DOTS laboratory diagnosis in Lithuania in 2000. All laboratories of the general health care system and the city TB dispensary were provided with binocular microscopes, autoclaves, and incubators. WHO has also provided new microscopes, a vehicle, and office computers. The Mariupol City Hospital #2 has a room for Ziehl-Neelsen microscopy. Three specimens from one patient are delivered to the laboratory at a time. Reagents for staining are prepared by a doctor/biochemist. Each week the laboratory receives samples of positive/negative smears from the city TB dispensary to control quality of staining, and each lot is accompanied by compulsory staining of positive/negative slides. All standard WHO recommendations regarding this procedure are followed. The system for QC of laboratory diagnosis is properly supervised. "Panel tests" with known results are made regularly, but test results are not recorded. Review of the register revealed that 40-52 percent of specimens were saliva and possibly non-diagnostic material.

All procedures at the Mariupol City Hospital #5 laboratory are performed according to WHO standards. Two separate rooms for microscopy have been refurbished and two laboratory assistants have been trained to perform all procedures including smear microscopy. A doctor/biochemist prepares reagents and the head of the laboratory controls quality of work and confirms AFB-positive smears. A review of the registers revealed that saliva was only 20-25 percent of all delivered specimens. Patients referred for TB diagnosis provide sputum three times. WHO has equipped the laboratory with an autoclave, incubators, a centrifuge, a biological safety cabinet with HEPA filter, a sterilizer, a binocular microscope, refrigerators, and analytical scales. All equipment is operational, and the laboratory work is organized in a professional manner with sufficient interlaboratory quality control. Results, however, are not documented or confirmed. Recently, TB among HIV-positive patients has become an issue as there are many AIDS patients in Mariupol.

**Conclusions.** Overall, the assessment team found that direct smear microscopy was standardized in the six Level II laboratories and the one Level III laboratory visited in Donetsk Oblast. Intra-laboratory quality control is conducted periodically, although, in the Level II labs, the results are not recorded. Quality control for special media for culture and for media to test drug sensitivity to TB, are not available, however. The laboratory of Mariupol has received LJ medium with reagents to test sensitivity to second-line drugs using the proportion method. This method, compared to the absolute concentrations method, is considered to be more accurate. The ITP has recommended that the method be introduced throughout Ukraine as a reference method. This would allow the registration of sensitivity to first- and second-line drugs, as well as the control multi-resistant strains.

At Level I laboratories, the procedures for microbiological diagnosis of TB are less consistent. Many laboratories need repair and new equipment. Quality control procedures for existing equipment (centrifuges, biological safety cabinet, incubators, autoclaves, sterilizers) do not exist. Lack of a system of internal QC significantly hampers the work of both laboratory staff and doctors since improper laboratory diagnosis misleads the doctor, resulting in inadequate treatment for the result. In this way, the emergence of multiresistant strains of MTB is facilitated.

### **3. Strengthening TB Surveillance**

The main objectives of the assessment phase for the MIS component were to evaluate the current TB reporting and recording system in Ukraine required by the MOH, determine the adequacy of surveillance capacity for TB control in Donetsk Oblast and Kyiv City as pilot sites for DOTS implementation, and identify the possibilities for developing and promoting implementation of an electronic MIS. Key activities included a review of the existing surveillance system and inputs to date from WHO, KNCV, and the World Bank, the establishment of a weekly discussion group to gain consensus on data recording and reporting forms, assessments of site readiness to move to electronic surveillance, and a literature review of TB surveillance approaches in other countries.

**General Findings.** The assessment confirmed that Ukraine's TB recording and reporting system is overburdened with information that is not used for management, and recording and reporting forms are not used consistently throughout the country. Representative data on TB incidence, prevalence, mortality, and cure rates are virtually impossible to obtain in Ukraine due to the lack of QC and QA systems for lab diagnosis, poor sensitivity and specificity of the current surveillance system based on active x-ray mass screening, and divergences from WHO's standards for case definition and treatment outcomes. The current TB surveillance system is based on aggregated reports from the field, which make it impossible to assess quality. In addition, TB services in Ukraine are overseen by two entities: the ITP and the MOH, as well as the local public health departments (rayon or oblast). Due to entrenched systems of punishment and reward based on disease control efforts, the latter system is inclined to under-report actual TB incidence and mortality.<sup>23</sup> Cases are often detected late, and the TB case definitions proposed by the Third Ukrainian Congress of pulmonologists and phthisiatricians (May 2003) and approved by MOH in summer of 2003 do not meet WHO standards. Monitoring and surveillance

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<sup>23</sup> Fieldworker's interview with employer of central hospital of infectious diseases.

activities are not reliable or appropriately integrated, and TB and HIV databases are not linked. The MOH has not yet adopted WHO's internationally-recognized required data recording and reporting system standards, which make it impossible to compare Ukrainian indicators with those in other countries.

**Monitoring and Reporting.** With support from the World Bank loan to address HIV and TB control, the MOH, together with the ITP, is planning to implement a TB monitoring and information system for epidemiologic analysis in the country. Key components of the plan include training of medical providers and statisticians in case definition and reporting, development of new reporting forms based on international standards, strengthening a central laboratory register for TB, and introducing an automated management system.<sup>24</sup> The ITP's goal is to move toward national adoption of a unified system. Further, WHO received supplementary funding from USAID to expand its efforts to strengthen the TB surveillance system within the context of their pilot project in Donetska as well as in Volynska and Kharkivska Oblasts and in Sevastopol City.

**Description the Current Data Recording and Reporting System (DRRS).** It is mandatory to report a case of TB. Information on case-finding from the district level is collected in monthly reports and sent to the regional and national levels. In addition, the district level prepares two annual reports on the incidence and prevalence of TB, which are sent to the regional level. At the regional level the data are compiled and sent to the national level including the ITP and the National Board of Statistics. The annual report on incidence is also sent to the regional and national SES.

*Annual reporting on incidence of active TB (Form 8):*<sup>25</sup> TB cases are divided into (1) pulmonary TB, which is further divided into positive smear and/or culture, destructive TB, silico-tuberculosis, or new tuberculosis infection (tuberculin test); and (2) extra-pulmonary TB. This report also includes age and sex distribution of cases. The data are used to:

- Conduct epidemiological analyses and estimate the epidemiological situation for the whole country and for specific regions;
- Maintain an index of health in different regions;
- Estimate the performance of different hospitals and their ability to identify TB cases; and
- Develop national and regional reports.

*Annual reporting on TB prevalence (Form 33):* From this form, calculations are made regarding the prevalence of different forms of TB among adults, children, and teenagers as well as among rural and urban communities; treatment effectiveness among those with primary TB who had positive cultures and/or smears; TB mortality and mortality due to other diseases in TB patients; relapse rates; effectiveness of TB services; and morbidity among TB patient contacts. These data are supposed to be used for strengthening programming and planning.

On September 1, 1999, Forms 8 and 33 were changed. The following information is now included on form 8: how pulmonary TB was detected (smear, culture, or histology); TB rates in

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<sup>24</sup> Melnyk, 2002.

<sup>25</sup> The Governmental Committee of Statistics Prikaz # 299 from 01.09.1999

the military, relapses, number of people with HIV among those with TB; and the number of people with TB among those with HIV. The following has been added to Form 33: TB rates in the military, relapse rates, and chronic TB rates.

*Annual reporting from all health services (Form 20):* Form 20 includes information on the incidence of all diseases in each region; the number of medical staff (including TB doctors, radiologists, TB pediatricians, and laboratory doctors) and the structure of patients in each general hospital; x-ray clinic activities; the number and condition of fluorography machines; the number and rate of positive fluorography exams; and the number and kind of microscopes.

**Description and Implementation of the WHO-recommended DRRS.** In addition to the MOH's DRRS, the WHO-recommended MIS has been approved by the MOH and implemented in Donetsk Oblast and Kyiv City. The WHO's MIS is based on the following forms:

- TB-01: "Medical card for TB case management"
- TB-05: "Specimen referral/report for microscopy testing"
- TB-06: "Specimen referral/report for cultural and DST testing"
- TB-07: "Quarterly report on registered new and relapsed cases"
- TB-08: "Quarterly report on treatment outcomes of registered new and relapsed cases after 12-15 months of treatment"
- TB-10: "Report on smear conversion after the intensive phase of treatment"
- TB-11: "Quarterly report on DST among all registered TB cases (categories I-III)"

As part of the WHO project in Donetsk, 15 rayon TB hospitals were equipped with information technology sets (personal computers, internal modems, printers, and software). The KNCV project also plans to equip all Kyiv City TB facilities with similar equipment.

In Donetsk Oblast, by the end of 2003, 100 percent of TB cases (categories I-III) were registered under DOTS. Further, a DOTS implementation protocol was developed and approved by the MOH.<sup>26</sup> The protocol and key DOTS components were approved by Prikaz 358 of the Donetsk Oblast Health Administration. The protocol includes:

- A plan for DOTS strategy implementation in Donetsk Oblast for 2002-2003;
- A descriptions of the oblast TB Program coordination team and their duties, city and rayon TB program coordination teams and their duties, and DOTS program supervisor teams and their duties; and
- Recording and reporting documentation for TB information management.

TB training modules entitled, "Managing Tuberculosis at the Rayon Level," were translated and adopted for Donetsk Oblast. The WHO project team trained nearly all primary health care and TB staff involved in case-finding and management. All TB patients whose results are inconclusive according to smear status receive TB treatment at one of 15 rayon or regional TB dispensaries or hospitals (inpatient) for the intensive phase and at one of the 45 TB facilities for

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<sup>26</sup> Prikaz (order) No. 337 of MOH.

the continuation (ambulatory) phase. During evaluation visits to Donetsk, TB and WHO authorities expressed interest in implementing an electronic version of the TB MIS system.

In Kyiv City, KNCV also plans to provide technical assistance related to the MIS component. Thus far, however, they have met strong resistance to altering case definitions and other key indicators for evaluating case management results. The Kyiv City TB service has a computerized TB registry system with individual data based on DOS using FoxPro software. The database is maintained in one old computer in the central city TB hospital and is based on individuals and not on cases. The database is overloaded with excessive qualitative and quantitative variables that are not related to TB program evaluation indicators. Further, the system is not capable of creating automatically generated cohort analysis reports based on WHO-recommended indicators. KNCV plans to create an additional computerized recording and reporting system that will be compatible with WHO's approach and will be entered and analyzed using Microsoft Access software.

**Weekly Discussion Group.** Currently, the DRRS forms being used in Kyiv City and Donetsk differ. As part of the process of reconciling these differences and developing recommendations for unified forms that could be adopted nationally, PATH convened a Weekly TB Surveillance Discussion Group from November 2003 through February 2004. By the end of the series of meetings, revised drafts were agreed upon and submitted to the MOH and ITP for review.

**Assessment of Other Oblasts.** In February and March 2004, PATH TB MIS expert, Dr. Dadu, accompanied Dr. Miskinis of WHO to Sevastopol City and Lutska and Kharkivska Oblasts to meet with TB authorities and assess readiness for adopting the WHO-recommended approach to surveillance. Based on these meetings, which were very positive, PATH will collaborate with WHO to implement systems in these regions over the next year.

**Literature Review: TB surveillance in Different Countries.** A total of 180 countries (out of 210) now implement the WHO-recommended strategy for TB control.<sup>27</sup> By the end of 2002, approximately 69 percent of the world's population lived in countries, or parts of countries, covered by DOTS. DOTS programs reported three million new TB cases, of which 1.4 million were smear-positive. A total of 13.3 million TB patients and 6.8 million smear-positive patients were treated in DOTS programs between 1995 and 2002.

Different countries use different approaches for tuberculosis surveillance and control. While the United States and the United Kingdom have advanced TB computerized systems, many developing countries have just begun implementing new TB electronic registers. As part of the assessment process, the systems used in 33 countries were reviewed for potential appropriateness for Ukraine. Of those reviewed, the systems in five are most compatible with Ukrainian conditions and the proposed system will draw from these models.

**Linkages with HIV/AIDS Prevention and Control.** According to WHO, it is imperative that countries affected by both epidemics implement strategies that incorporate TB control

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<sup>27</sup> WHO Report 2003. Global Tuberculosis Control. *Surveillance, Planning, Financing*.  
<http://www.who.int/gtb/publications/globrep/index.html>.

interventions into their general health service response to HIV/AIDS and vice versa.<sup>28</sup> According to data used in the Government's application to the Global Fund Against HIV/AIDS, TB, and Malaria, 10 to 12 percent of HIV-infected individuals may have TB, while nearly half of all deaths among people with HIV in Ukraine are attributable to TB.<sup>29</sup> At a WHO roundtable meeting on HIV and TB in November 2002 in Donetsk, participants highlighted a number of key areas that need to be strengthened to properly link HIV and TB management in Ukraine. Currently, the HIV and TB monitoring systems are completely separate. Further, TB specialists are insufficiently informed about HIV, while HIV specialists lack knowledge about TB.

#### **4. Behavior Change Communication**

PATH project staff conducted formative research to collect baseline data on TB-related knowledge, attitudes, and practices (KAP) among the general public and several specific populations of interest. The goal of the research was to explore the needs, behavioral practices, and knowledge base of these populations and clarify the best channels and formats for bringing TB information to them. Further, the study surveyed the opinions of the target populations on what media messages and materials are most desirable, effective, and accessible and tried to identify networks through which peer outreach and support activities could be initiated or strengthened. The research also aimed to highlight barriers to timely medical care, as well as recommendations for addressing those barriers through the project. The formative research included a KAP survey among the general public and among open market vendors, food bank clients and former prisoners in Donetsk Oblast and Kyiv City and focus group discussions (FGD) with PLHA. To complement these methods, PATH also conducted an exit survey among patients leaving TB care facilities to evaluate their satisfaction with the performance of doctors.

**KAP Survey.** To establish a baseline on TB knowledge, attitudes, and practices, PATH hired an independent research firm to conduct a survey among the general public and several specific populations. The firm administered the survey to a total of 1,600 individuals in the general public (800 each in Kyiv City and Donetsk Oblast); 60 open market vendors and 100 clients of food banks in Kyiv City and Donetsk Oblast; and 50 recently released prisoners in Donetsk Oblast. A summary of results is presented below:

- Sixty-six percent of all respondents think that TB is a serious problem. Eighty-five percent recognize persistent cough as the primary symptom of TB, and 90 percent know that TB is transmitted via air. Sixty-three percent know that TB can be cured, but 21 percent think it cannot.
- Between 57-77 percent think that TB diagnosis and treatment in Ukraine is very expensive.
- Fifty-three percent of the general population has known someone with TB, whereas 92 percent of former prisoners have.
- The vast majority (71 percent) of all respondents recognize that anyone can be infected with TB. Most people acknowledge that poor people, homeless people, and prisoners are at higher risk.

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<sup>28</sup> World Health Organization, STOP TB Department, Communicable Diseases Programme. *Strategic Framework to Decrease the Burden of TB/HIV*. WHO/CDS/TB2002.296. Geneva, 2002.

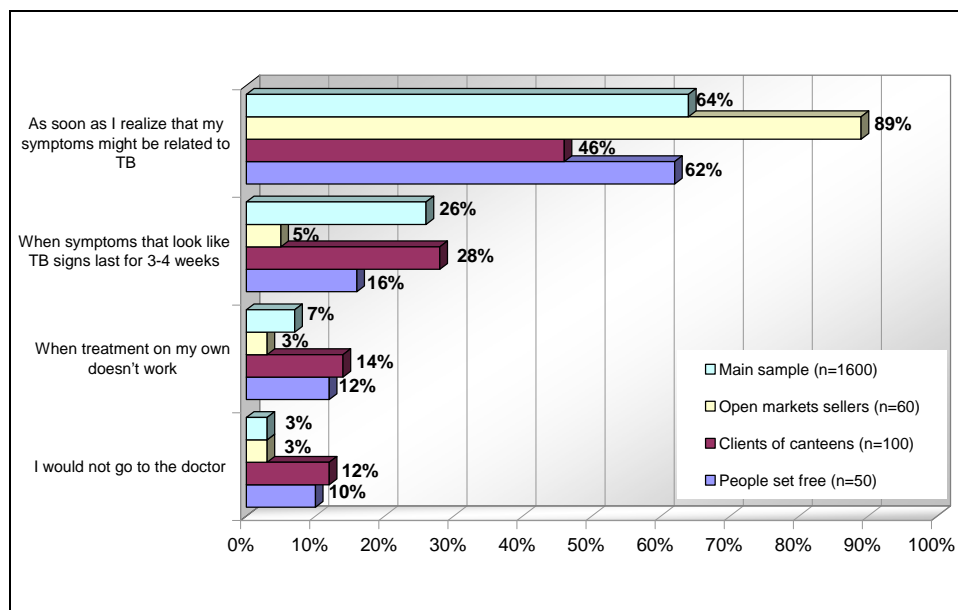
<sup>29</sup> Government of Ukraine, *Application to the Global Fund Against HIV/AIDS, TB, and Malaria*, Kyiv, 2002.



- Thirty-seven percent of general public feel they are at considerable risk of getting TB, and 42 percent say they have little risk. Fifty percent of former prisoners and 60 percent of open market vendors say they are at considerable risk of getting TB.
- Sixty-four percent say that they will go to a doctor as soon as they realize symptoms might be TB.

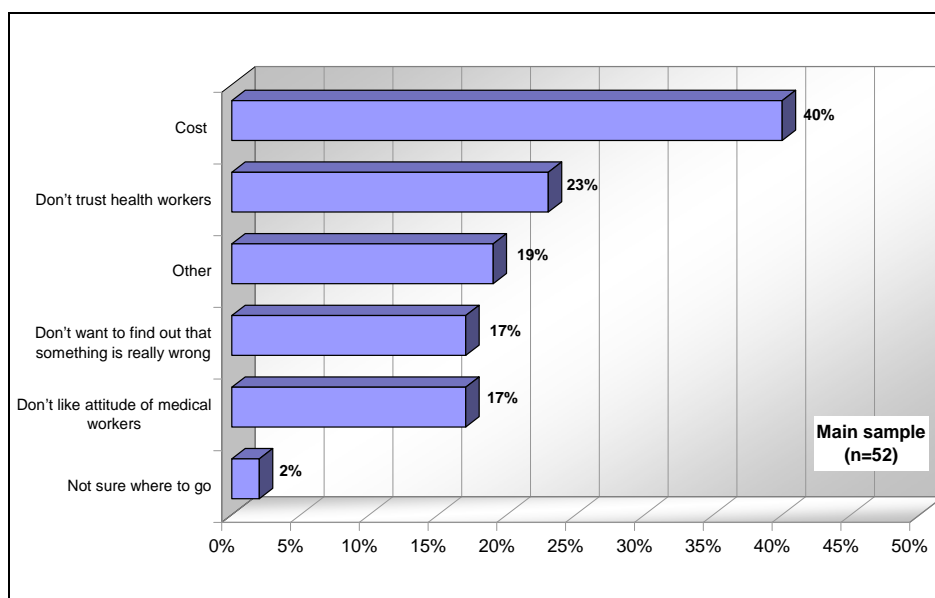
### *Reasons for Delay in Seeking TB-related health care*

Distribution of respondents' answers to the question, *At what point would you go to the doctor?*



- For those who say that they wouldn't go to a doctor, the reason is related to cost (40 percent) and lack of trust in or poor attitude of medical workers (40 percent).

### *Reasons for not seeking TB-related health care*



- Sixty-eight percent of prisoners, 50 percent of open market vendors, and only 35 percent of the general public say that they feel compassion and desire to help towards people who have TB; 45 percent of the general public say that they feel compassion but tend to stay away from someone with TB.
- TV is the most popular source of information about TB among most audiences (37-67 percent). Prisoners cite family and friends (46 percent) and medical workers (40 percent) as the most common sources of information.
- Medical workers are the most trusted source of information about TB, followed by TV and specialized health journals.

Also, key findings from PATH's 2002 formative research in Donetsk Oblast suggest that most people delay seeking health care because they distrust doctors' qualifications, cannot afford drugs, and must endure long waits, limited polyclinic hours, and indifferent provider attitudes. Many fear TB infection and continue to hold stigmatizing views of TB patients because of the disease's association with marginalized populations. The baseline research suggests a dearth of educational materials for TB patients and their families. In light of this, TV spots featuring doctors or scientists can reach an extensive audience and capture public attention. Furthermore, radio broadcasts and local periodicals have a considerable potential for providing TB-related information to a broad population, especially in rural areas. Peer education methods may be especially appropriate among prisoners, released prisoners, homeless people, and clients of social services such as charitable food banks. Educational messages should emphasize the importance of seeking care early, when symptoms are first recognized.

**Focus Group Discussions with PLHA.** The same private research firm also conducted FGDs with PLHA in Kyiv City (three FGDs) and in Donetsk Oblast (one FGD in Mariupol and one FGD in Makiyivka). The aim of this research was to identify PLHA knowledge about TB transmission, symptoms, diagnosis, and treatment; to determine factors influencing their behavior related to TB; and to determine priority educational activities. In addition, the research focused on gathering information about PLHA perception of TB infection risk.

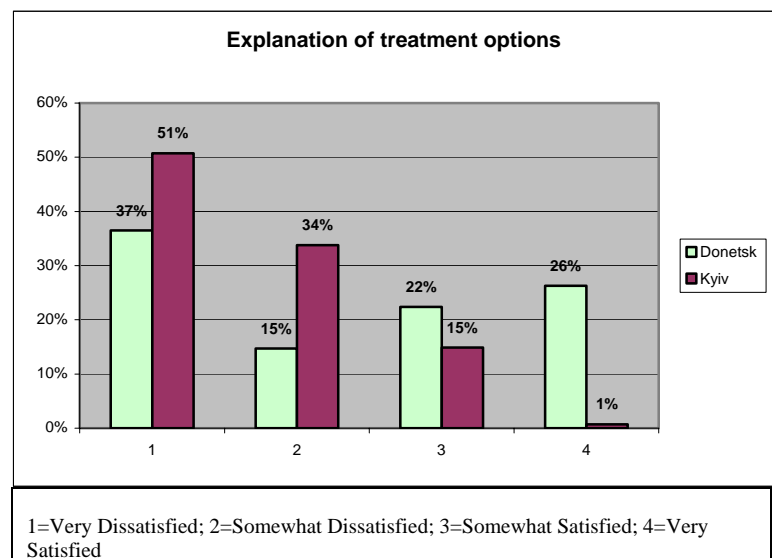
The results of the focus group research indicate that it is urgently necessary to launch a TB educational campaign targeting PLHA. Awareness about TB and perceived risk of getting infected are low. Typically, only individuals who have learned about TB from personal experience or from infected friends or family members articulate a more accurate perception of risk. In addition, the focus group research found the following:

- Stereotypes and misconceptions about TB prevent HIV-infected persons from suspecting that they may have been infected. For example, many participants thought that TB therapy was expensive and unaffordable, and some thought that getting an x-ray during diagnosis would cause serious damage to their health. Other participants felt that there was a shortage of laboratories capable of diagnosing and treating TB, and a few claimed that TB doctors prescribe insufficient dosages of medications because of their stigmatizing views of PLHA.
- Many PLHA delay seeking health care and some do not follow medical recommendations and/or attempt ineffective self-treatment. While these behaviors may be in reaction to the

decline of public health services, poorly qualified medical personnel, and a high level of stigmatization of PLHA by medical personnel, they also contribute to a dangerous delay in obtaining timely, effective, and free diagnosis and therapy.

**Exit Survey Among TB Patients.** PATH project staff designed an exit survey for patients leaving TB facilities to evaluate client-provider communication. The goal of the survey was to collect baseline data on the training needs to improve provider performance. The survey was supplemented with in-depth interviews among selected patients. A total of 312 individuals were interviewed in Donetska Oblast and Kyiv City. More respondents in Donetska Oblast than in Kyiv reported that they were very satisfied in almost all categories. To provide context for the exit survey, PATH also conducted interviews with providers and patients to explore their opinions and experiences in greater depth. A summary of the exit survey findings includes the following:

- The majority responded that they were satisfied with the doctor's ability or willingness to make them feel comfortable (60 percent) and to treat them respectfully (63 percent). More respondents in Donetska than in Kyiv expressed satisfaction with these aspects of their visit.
- Thirty-four percent overall said that they were satisfied with the doctor's ability or willingness to allow them to share concerns and questions about their health, while another 34 percent said that they were not satisfied. Nearly half of patients in Kyiv (48 percent) and only 21 percent of patients in Donetska report being not satisfied.
- Forty-three percent were very dissatisfied or not satisfied (24 percent) with the doctor's ability or willingness to explain the treatment options available to them. Significantly more patients in Kyiv were very dissatisfied, whereas more patients in Donetska tended to be very satisfied.
- Fifty-seven percent stated that they were very dissatisfied with the doctor's ability or willingness to provide them with advice about how to talk with their family about TB. When disaggregated by location, there is a marked difference between Kyiv and Donetska; the proportion of respondents in Donetska that were very satisfied (28 percent) far surpassed the same category in Kyiv (1 percent).
- Seventy-nine percent said that they were not assured that their medical information would be kept confidential, including 61 percent of respondents in Donetska, and 98 percent of respondents in Kyiv.
- Seventy-two percent of patients said that they clearly understood the next steps that they needed to take in their treatment. Over a quarter (28 percent), however, stated that they did not clearly understand.



- Ninety percent of patients received no written information on TB from doctors. Virtually all respondents who received information were in Donetska (19 percent) versus Kyiv (1 percent).

The exit survey and in-depth interview results revealed that numerous factors influence the quality of provider communication. Few doctors give appropriate verbal and written information to their patients, and many patients leave the clinic without asking questions to clarify TB information they have received. The survey pointed out the necessity of training TB doctors to improve their interpersonal communication skills, ensure confidentiality, and provide patients with guidance on how to communicate with their families. Results also suggest that written materials be produced and distributed to aid patients in fully understanding their illness.

## **F. Program Description by Objective, Intervention, and Activities**

The overall goal of the project is to assist Ukraine in improving tuberculosis case detection and management in selected locations through the implementation of the WHO-recommended strategy, thereby contributing to a reduction in public health risk of tuberculosis. Specifically, in partnership with local health authorities and agencies currently implementing TB control activities in Ukraine, PATH seeks to complement and augment existing and planned DOTS introduction in Donestka Oblast, Kyiv City, as well as at least one other region. Over three years, PATH proposes to achieve the following objectives (**in bold**) using the strategies described below:

1. **Improve capacity for DOTS expansion within Ukraine** by advocating for political support for DOTS at all levels of government, including facilitating the development of an appropriate legislative base in support of newly introduced TB control approaches and by assisting the government with DOTS "expansion preparedness" to additional oblasts.
2. **Improve the quality of TB diagnostic services in at least two oblasts** by designing, implementing, and building capacity to sustain quality control procedures for smear microscopy, culture, and drug sensitivity testing, and, if possible, evaluating improved technologies for TB case detection;
3. **Improve use of monitoring and surveillance data for TB program management** by introducing and institutionalizing methods to monitor program performance at all health service levels.
4. **Reduce diagnostic delay, increase case detection, and improve adherence to TB treatment** by stimulating timely and appropriate health-seeking behavior for TB symptoms; implementing specific community mobilization strategies; increasing awareness and understanding of TB transmission, symptoms, treatment, and cure among the general public, as well as among specific populations at risk; and introducing culturally sensitive treatment support strategies for TB patients and their families.
5. **Improve provider practices** by strengthening provider capacity to diagnose and treat TB based on DOTS, improving systems to support appropriate referral of TB cases, and enhancing knowledge of and response to HIV/TB interaction, with emphasis on appropriate counseling and client-provider interaction with emerging populations at risk.

PATH's key interventions will include policy and advocacy support, laboratory quality assurance, using monitoring and surveillance information for TB program management, behavior change interventions aimed at the general public and patients, and training and support for improved provider performance. These have not changed since the original proposal was submitted.

**Objective 1: Improve capacity for DOTS expansion within Ukraine by advocating for political support for DOTS at all levels of government, including facilitating the development of an appropriate legislative base in support of newly introduced TB control approaches and by assisting the government with DOTS "expansion preparedness" to additional oblasts.**

In collaboration with Ukraine's TB medical community and relevant international and local partners, PATH proposes to advocate for political support for the WHO-recommended strategy at all levels of government, including facilitating the development of legislation in support of newly introduced TB control approaches. The WHO strategy is a radical change to the conventional, Soviet-style TB case management that Ukraine has implemented for many decades. Implementation of the WHO strategy potentially could break down some of the barriers to TB elimination in Ukraine, including reducing the cost of diagnosis and treatment. It is well known, for example, that the choice of diagnostic and hospitalization policies has the greatest influence on overall TB control costs.<sup>30</sup> Advocacy and education among decision-makers in the government and the medical community will be essential to successful national adoption of the WHO strategy in Ukraine. PATH therefore proposes to work closely with local technical partners, WHO, KNCV, USAID, the World Bank, and other donors and collaborating agencies to advocate for legislative changes that will facilitate DOTS implementation and bring TB policies and treatment protocols in line with international standards. Further, should a high-level working group (HLWG) be established in Ukraine, PATH will collaborate closely with this entity to ensure that our efforts are supportive of the HLWG agenda. As part of our efforts, PATH is developing Memoranda of Understanding for Partnership with national and international partners, including the MOH, ITP, Donetska Oblast, and Kyiv City Health Administrations, WHO, USAID and KNCV, and the World Bank project. These will be included in the final version of the DIP, due in June 2004. To ensure effective coordination of project activities, representatives of these groups will comprise a Project Technical Advisory Group, which will meet annually.

Specific activities include the following:

*1.1. Monitor the development of new legislative and policy documents, further identify gaps or contradictions, and recommend additions or revisions to the legislative base.*

To facilitate this work, PATH will establish a Policy and Advocacy Consulting Group to identify and prioritize necessary revisions or additions to the wide range of legislative and policy documents previously described. Leading TB specialists, politicians, health authorities, and WHO, KNCV, USAID, and World Bank partners will take part in quarterly Policy and Advocacy Consulting Group Meetings. Group recommendations will be sent to Verkhovna

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<sup>30</sup> Ukraine Ministry of Health, World Health Organization, and USAID/CDC. *Joint Review of Tuberculosis in Ukraine*, 6-15 December 1999.

Rada, the Cabinet of Ministers, the MOH, and the pilot region health administrations. The Policy and Advocacy Consulting Group members also will disseminate information about their recommendations through technical meetings and conferences.

### *1.2. Convene two technical symposia.*

The goal of these symposia will be to foster discussion and to enhance understanding of up-to-date, evidence-based recommendations regarding TB control globally and in Ukraine.

Symposium topics currently being considered include:

- Developing the next NTP: Recommendations for the next phase (the first expires in 2005), with a focus on needed legislation to further support the WHO-recommended strategy
- TB-HIV co-infection: case management and surveillance issues
- MDR TB: prevention, diagnosis, and management

The selection of these national symposia topics emerged from discussions at the Project Stakeholders Meeting in March 2004. PATH proposes to jointly convene these symposia with the WHO TB Office in Ukraine and with the MOH and ITP. PATH anticipates inviting approximately 100 key experts and providers, representing national and regional health administrations, the SES, TB chief doctors from each oblast, national and international NGOs, and several international experts. PATH will disseminate reports and recommendations based on each symposium to the Verkhovna Rada and the Government of Ukraine, national and international partners, symposia participants, and other key stakeholders.

### *1.3. Increase access to up-to-date literature on international TB control.*

Results from the assessment indicated that many TB providers as well as TB and general health authorities lack up-to-date information on the WHO-recommended strategy, specifically regarding diagnosis and treatment standards and global progress in combating the disease. This gap in information can be attributed to historically poor access to scientific literature from the west, lack of funding to support internet access or journal subscriptions, and poor knowledge of English. To address these barriers, PATH proposes to provide translated abstracts of key literature twice a year to TB experts, continue and expand an e-mail listserve, support access to the internet in selected sites, and conduct seminars and small group meetings on selected technical topics.

### *1.4. Support selected local TB experts and officials to attend regional or international technical conferences and meetings.*

To the extent possible, PATH will support local partner representatives to attend technical meetings and conferences in the region. For example, PATH already has committed to supporting six officials, representing Donetsk, Kyiv City, and the ITP, as well as three local PATH staff, to attend the upcoming Third Congress of the International Union Against Tuberculosis and Lung Disease, European Region, in Moscow in June 2004. About 4,000 participants from Europe, Russia, and other countries are expected. The scientific program will address the latest advances in clinical diagnosis and treatment.

*1.5. Develop criteria for DOTS expansion to at least one additional oblast.*

PATH proposes to work closely with national and local health authorities, as well as KNCV, WHO, USAID, and the World Bank, to move the DOTS scale-up plan forward in Ukraine. During the second and third project years, in particular, PATH will assist with strategy development and implementation of “preparedness” activities. During mid-2005, PATH will facilitate the development of criteria for selecting additional regions for scale-up as well as participate in an assessment team that will conduct site visits and make recommendations regarding oblast readiness. A specific plan for scale-up will be dependent on the results of the pilot efforts in Kyiv City and Donetska Oblast, on government priorities, and on KNCV, WHO, USAID, and World Bank inputs. The location and scope of the World Bank-funded effort also play an important role in the region selection.

*1.6. Convene Annual Stakeholder Meetings.*

In September 2004, 2005, and 2006 we will gather key TB project partners (about 15 – 20 persons) to present annual reports, discuss project progress, and address potential barriers or constraints to progress that may have arisen. These annual meetings will be an essential mechanism for building local ownership of activities, making “course corrections” to the DIP, and fostering genuine collaboration among all key agencies involved in TB control in Ukraine.

**Objective 2: Improve the quality of TB diagnostic services in at least two oblasts by designing, implementing, and building capacity to sustain quality control procedures for smear microscopy, culture, and drug sensitivity testing, and, if possible, evaluating improved technologies for TB case detection.**

*2.1. Introduce direct smear microscopy QC systems in general health care Level I laboratories in Donetska Oblast, as well as inter-laboratory smear microscopy QC systems in Level I and II laboratories in Donetsk City and Donetska Oblast.*

Although smear microscopy is simple and relatively inexpensive, it requires high-quality microscopes, experienced microscopists, and exacting quality control. To date, WHO has supplied selected TB dispensaries in Donetska Oblast with modern microscopes, laboratory supplies, and training in sputum direct acid-fast smear microscopy. A sustainable system for both internal and external quality assurance, however, still needs to be established.<sup>31</sup> Further, as the assessment confirmed, although some quality assurance practices were observed, there is no systematic documentation of quality using either internal or external indicators. PATH therefore proposes to develop a QA program to improve the efficiency and reliability of smear microscopy, with a focus on Level I and Level II laboratories in Donetska Oblast.

A QA program evaluates and ensures that laboratory services and procedures: (1) provide accurate, relevant, and timely information; (2) identify and correct problems; and (3) assure the competency of laboratory personnel in delivering high-quality health care. Quality assurance with regard to TB bacteriology is designed to continuously improve the reliability, efficiency, and use of TB services. A QA program should essentially consist of three main components:<sup>32</sup>

<sup>31</sup> Miskinis, K. WHO-Ukraine. Personal Communication, 2002.

<sup>32</sup> International Union Against Tuberculosis and Lung Disease. *The Public Health Service National Tuberculosis Reference Laboratory and the National Laboratory Network: Minimum Requirements, Role and Operation in a Low-Cost Country*. ISBN 2-9504238-7-6, 1998.

(1) quality control, a process of effective and systematic internal, facility-based monitoring that allows the frequency of errors to be estimated against established limits of acceptable test performance; (2) proficiency (panel) testing,<sup>33</sup> a program whereby external reviewers from a supervising facility assess laboratory capabilities by comparing results to those obtained from other laboratories; and (3) quality improvement, a process by which the components of TB diagnostic services are analyzed with the aim of looking for ways to permanently improve the quality of these services. It is not sufficient in panel testing to identify weaknesses or errors without implementing some type of plan for addressing those weaknesses. Continual quality improvement occurs through—but is not limited to—the use of hospital or public health department information system reports, laboratory QA feedback reports, laboratory meetings, review of laboratory requisitions and reports, evaluation of new procedures and instruments, and investigation of processes that need improvement. When opportunities for system improvement are identified, corrective plans can then be developed and implemented.

Based on the assessment, PATH has identified a number of key aspects of care that require improvement. These include:

- Reporting of patient laboratory test results
- Specimen collection
- Laboratory procedure evaluation
- Patient selection and appropriate use of tests
- Medical staff education

For these and other areas, thresholds of acceptable quality will be established. This approach is designed to ensure that when indicators suggest that the quality has reached or fallen below the threshold, an evaluation is triggered, followed by a plan of action to correct identified problems. The effectiveness of these actions is then monitored and reported on.

PATH will address all components of a comprehensive quality assurance program for smear microscopy and will include the following interventions:

**Development of Methodological Recommendations.** Given the absence of clear national guidelines for smear microscopy, as well as contradictions in national and regional ministerial orders and lack of consistency with international standards, PATH proposes to establish a TB Laboratory Working Group consisting of the chief of the NRL, staff members of the Department of Bacteriology of the Kyiv Medical Academy of Postgraduate Education, the chief of the Donetsk Oblast Clinical TB Hospital laboratory, the chief of the Kyiv Central TB Dispensary laboratory, and staff members from PATH and KNCV. The working group's objectives will be to review current ministerial orders related to TB laboratory functioning and develop recommendations for revision; develop and submit for MOH approval methodological guidelines; monitor the process of QA introduction and offer technical advice and support, as necessary; and assist in planning technical seminars and other meetings where technical information can be shared and discussed.

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<sup>33</sup> Also known as external quality assessment by WHO standards.



**Implementation of QA Workshops.** Based on the assessment data, appropriate, peer-reviewed training materials and curricula—following WHO guidelines for laboratory services in TB control—will be prepared for use at a series of quality assurance workshops. PATH will collaborate with Carolyn Wallis, RM (AAM), a mycobacteriology expert with training experience in smear microscopy in Ukraine and Uzbekistan who also conducted the laboratory facility assessment for this project, to prepare the training materials and lead the first several three- to five-day workshops. These workshops will be aimed at TB dispensary laboratory chiefs, representatives from the Oblast TB Hospital, from WHO, and possibly representatives from the ITP. KNCV partners from Kyiv also will be invited. After these initial workshops, local trainers, supported by PATH’s lab expert in Kyiv, will conduct all subsequent training. PATH envisions that Ms. Wallis will conduct two, three- to five-day workshops (one each in Year One and Year Three), and PATH’s Kyiv-based laboratory specialist and trained trainers will conduct twenty three-day workshops for a total of 200 laboratory staff.

The objective of these QA workshops will be to enhance knowledge and proficiency in conducting smear microscopy primarily focusing on the QC aspects. Basic mycobacteriology and safety training also will be reviewed to ensure and reinforce fundamentals of good laboratory practice. The workshops will comprise classroom and laboratory components and will cover all aspects of smear microscopy internal and external QC, including development of a quality control manual that will outline the general QC approaches and procedures for equipment, media, reagents, susceptibility testing, and personnel in the laboratory. Standard operating procedures, accurate reporting of results, self-assessment, panel testing, and blinded rechecking of results also will be addressed. In addition, participants will be trained in accurate reporting of results. Quality improvement and proficiency testing will be discussed and implemented during follow-up and monitoring. While the training will address the issue of specimen collection, KNCV in Kyiv City and WHO in Donetsk will continue to take the lead in strengthening this aspect of smear quality through their existing medical provider training workshops. Facilities that have been prioritized for this training include, but are not limited to, the Donetsk City TB Dispensary, the Mariupol City TB Dispensary, the Gorlovka TB Dispensary, and the Donetsk penal health care system.

**Panel Testing.** The Donetsk Oblast TB Dispensary will develop a smear microscopy panel-testing program. They will prepare and distribute materials, document and assess results, and provide follow-up guidance and training at individual TB dispensaries. These dispensaries will perform the necessary procedures and report their results to the chief of the Oblast TB Dispensary laboratory, who can then assess proficiency. Panel testing will be conducted quarterly during the project. In the long term, it will be conducted at least biannually, as recommended by WHO.

**Follow-up and Monitoring.** With cooperation from Dr. Elena Yann, Head of the Donetsk Oblast TB Hospital laboratory, as well as from WHO staff in Donetsk, PATH will develop a plan and schedule for external QC visits and monitoring. PATH laboratory expert, Dr. Ivanenko, will be responsible for implementing this plan. Monitoring visits will focus on observing the procedures for all quality control aspects of smear microscopy. To facilitate this process, Dr. Ivanenko, in collaboration with local partners, will collect and analyze data using laboratory registers and a structured questionnaire designed to generate standardized qualitative and

quantitative information for monitoring and evaluation. The goal will be to produce objective, valid, and reliable data on smear microscopy performance. In addition, Dr. Ivanenko will observe laboratory reliability and efficiency and make recommendations for quality improvement. She also will review the TB control registry to ensure that laboratory results are being used to make treatment decisions. Over time, visits will be prioritized based on laboratory performance so that substandard “performers” receive additional attention. Other activities to support QA improvement will include additional hands-on training at the City or Oblast TB Dispensary, as well as technical support visits to the ITP in Kyiv. Finally, in the first quarter of the third year of the project, original workshop participants will be invited to attend a second workshop led by Dr. Ivanenko to review and discuss the outcomes and challenges of implementing the QA program. Through this classroom-based workshop, priority action items—in addition to the ongoing monitoring of the QA program—may be identified.

## *2.2 Introduce QC of culture tests for MTB at selected level II and III laboratories.*

Culture tests will be addressed after a complete QC program for acid-fast smear microscopy and general laboratory practice is well established and results are consistently acceptable. At that time, based on laboratory assessment results, PATH will implement a system for the following procedures:

1. Specimen processing: sputum decontamination and concentration procedure
  - Glassware cleaning
  - Reagent preparation
  - Specimen collection, transport, and evaluation of acceptability
  - Biological safety cabinet: operation, maintenance, annual certification
  - Aseptic technique: safe practices to protect technician and prevent cross-contamination between specimens
  - Centrifuge operation and maintenance
  - Biohazardous waste handling
2. Cultures
  - Media preparation: sterility, ability to grow MTB
  - Incubator: monitoring temperature
  - Culture management: screening for growth
  - Results: recording, reporting, and review
3. Identification tests for MTB (QC)
4. Susceptibility testing
  - Freezer: temperature monitoring (storage of drug powders, control organisms)
  - Drug solution preparation
  - Test and control media preparation
  - QC of susceptibility tests using sufficient array of organisms with varying susceptibility appropriate for drugs being tested
  - Panel testing (external QC)

Because of the remaining uncertainty regarding the status of the NRL, PATH proposes that a QC system for culture tests be established with the Departments of Bacteriology of Clinical and Diagnostic Laboratories within the Donetska TB dispensaries. To accomplish this, the Oblast Health Department will need to issue an order authorizing inter-laboratory QC of culture tests among the Oblast TB Clinical Hospital, the Mariupol City TB Dispensary, the Gorlovka City TB Dispensary, and the penal health system's bacteriological laboratory. Further, the program will offer culture QC results to the MOH and ITP for review. Finally, if feasible, local bacteriologists could participate in the two-week WHO course in Vilnius, Lithuania.

*2.3 In cooperation with the Center for Microbiological Diagnosis of TB and with the chief of the NRL for Microbiological Diagnosis of TB, develop methodological recommendations regarding QC and QA of culture tests and TB drug sensitivity testing at oblast-level laboratories.*

As has been noted, it appears that the MOH will be establishing its own NRL with funds from the World Bank loan. The proposed director of this laboratory, Dr. Anna Barbova, has indicated that methodological recommendations regarding QC and QA of culture tests and TB drug sensitivity testing at oblast-level laboratories will be developed during the first quarter of 2005. These will be based on WHO and CDC recommendations. Dr. Barbova has suggested that PATH could facilitate this process and provide related technical assistance, although further negotiation is needed. As part of this effort, PATH will recommend that the following methods be adopted:

- Bleach concentration method for acid-fast smear microscopy. This is a simple and inexpensive method that has been shown to improve yield of AFB compared to direct sputum smears.
- N-acetyl-L-cysteine (NALC)-NaOH method. PATH recommends that this generally accepted and widely used approach replace the trisodium phosphate (TSP) sputum processing method currently being used in Ukraine.
- MTB identification from culture growth using a combined niacin and nitrate test and in-laboratory prepared niacin strips. KNCV is currently promoting this approach and PATH will collaborate with them to explore its adoption in Kyiv City and Donetsk.

In addition, depending on continuing discussions with KNCV, PATH may choose to explore an alternative method to Lowenstein-Jensen for drug susceptibility testing. This new method is based on a modification of the proportion method in Middlebrook 7H10 agar, which uses a single square plate divided into quadrants, each containing a different concentration of an appropriate drug.

*2.4 Identification and possible evaluation of at least one new TB diagnostic test or approach.* During the first year of the project, PATH will gather further data on the performance needs, required level of simplicity, and acceptability of new diagnostic approaches. Examples of potential technologies might include improved smear methods or use of rapid serological diagnostic tests. The top one or two technologies will then be considered for possible evaluation should the ITP be interested and should additional funds be identified for evaluation. PATH currently is in discussions with the Foundation for Innovative New Diagnostics (FIND), based in

Geneva, which has expressed interest in possibly collaborating with PATH to evaluate an emerging TB diagnostic technology using a transdermal patch to detect active TB.

If a technology is successfully identified, a demonstration study could focus on four key factors that are likely to affect adoption of the technology: (1) accessibility to populations in need, (2) acceptability by both the health care provider and the patient, (3) affordability and cost-effectiveness, and (4) sustained availability. Demonstration studies could focus on evaluating the technologies in a true-use scenario as well as capturing information—wherever appropriate—on health care provider and patient acceptability of the new tool. Although it will be beyond the scope of the current project to measure the long-term impact of a new technology on improving TB control in Ukraine, it is anticipated that any new technologies that are introduced would enable TB case detection to be conducted with greater ease and with enhanced reliability. It must be remembered, however, that introduction of new diagnostics tools cannot substitute for QC in the laboratory and good clinical practices.

**Objective 3: Improve use of monitoring and surveillance data for TB program management by introducing and institutionalizing methods to monitor program performance at all health service levels.**

An accurate, appropriate, consistently defined, and applied system for collecting and reporting surveillance and case management data—and the linkage of that information to management action—is essential for efficient, cost-effective TB control programs (as it is with all public health interventions). The content of a TB EMIS based on WHO recommendations provides critical tools that enable effective case detection, case management, cohort analysis, and program management. Good surveillance at local and national levels is essential to:

- Monitor trends in clinical, demographic, and microbiological information on all cases occurring in the region, including epidemiological features such as risk groups/factors.
- Identify facilities or regions that need additional technical support to enhance case detection and improve treatment outcomes.
- Detect outbreaks.
- Monitor the occurrence of drug resistance.
- Monitor the delivery and effectiveness (outcome) of treatment programs.
- Lay the foundation for future development in those areas where optional information is collected.

As confirmed during the assessment phase, Ukraine's existing data recording and reporting system for TB requires support and modification to accommodate the requirements of DOTS implementation. Even where appropriate data are available, information-based decision-making is often absent because of ingrained management practices that, having never depended upon this kind of information, do not recognize the importance of using it. PATH therefore proposes to support WHO, KNCV, the World Bank, and national and regional authorities to develop a standardized TB MIS, based in Ukraine on the WHO-recommended approach demonstrating its efficiency and efficacy in Donetsk Oblast initially and then expanding to other regions. Key activities of this component include the following:

*3.1. Evaluate and revise current data recording and reporting system forms and introduce analytic methods of assessment of patient progress and treatment outcome, overall program performance, and rapid managerial assessment protocols to monitor performance through appropriate training at the facility, rayon, or oblast levels.*

As has been previously noted, a DRRS Discussion Group was convened between November 2003 and February 2004 to review and revise existing forms. A key goal was to move Ukraine towards adopting the standard international definition of a notifiable case of TB and integrating WHO standard TB case information and DOTS-based patient registration and treatment into routine health care practice. The Discussion Group was successful in developing a full set of draft reporting and recording forms with attached guidelines on use. The forms were subsequently field-tested and submitted to the MOH with an accompanying letter on behalf of the group urging the ministry to use them as a base for the new TB DRRS. In addition, with MOH approval, PATH and WHO presented a full set to the Sevastopol City, Kharkivska, and Volynska TB authorities for evaluation.

As a next step, local TB clinical partners and authorities will field-test the revised forms. One-hundred copies of each form will be printed and distributed to different levels of the TB care system in Donetska, Kharkivska, and Volynska Oblasts, as well as in the cities of Kyiv and Sevastopol. Once revised, a total of 10,000 copies of the TB-01 form will be printed and distributed to Donetska, Volyn, and Kharkiv oblasts, and Sevastopol city TB hospitals.

PATH, in collaboration with WHO, will provide training on the use of the recording forms to rayon TB specialists responsible for statistics representing the approximately 50 rayons in Donetska Oblast. The one-day training will include a review of TB epidemiology in the country/oblast, a review of key changes in the forms and the rationale for them, and instructions for use. All training modules will be prepared in cooperation with oblast TB authorities. PATH, with support from WHO, will also train rayon TB specialists from Sevastopol and from Volynska and Kharkivska Oblasts. In Kyiv, training will be conducted in collaboration with KNCV. PATH will have overall responsibility for conducting all trainings and for preparing training curricula and materials.

Since TB specialists in both Kyiv City and Donetska Oblast have been trained by KNCV and WHO, respectively, regarding analytic methods of assessment of patient progress and treatment outcome, overall program performance, and rapid managerial assessment protocols, PATH will seek to reinforce this information through these one-day training workshops as well as through site visits.

The TB MIS Discussion Group will reconvene periodically during the project term for the purpose of ensuring effective coordination, collaboration, and synergy among the key groups involved in improving TB monitoring and surveillance and clarifying organizational roles and responsibilities in strengthening the TB MIS so that all essential elements are covered while avoiding duplication. The group will be expanded to include representatives from key oblast-level partners such as those from TB dispensaries, the SES, regional health administrations, specialized TB hospitals or departments, the penitentiary system, and HIV Centers. On the basis of the group's recommendations, PATH will identify appropriate technical expertise from within the partner agencies and develop or augment methods, training tools, and materials for the

introduction of revised forms and associated policies and practices.

*3.2. Design and implement a TB electronic information management system for surveillance and case management of registered TB cases.*

To improve efficiency, PATH proposes to design an electronic version of the TB MIS. This system will use EPI Info and be adapted from various programs and modules previously developed by the CDC. Key specifications of the system include the following:

1. General interface
2. Data base structure
3. Data entry and data entry checking modules
4. Data analysis modules (automatically generated tables, operational analysis, and data mapping)

The TB electronic management information system (TB-EMIS) will include three components: a data entry module, an output module, and an operative analysis module. The first two modules will be used at the rayon level while all three will be available at the oblast level. With a few minor revisions, the oblast system also can be used at the national level.

At the rayon level, primary data will be entered in a data entry module from the TB case registration form (TB-01). The quality of data entry is controlled by an automatic check function included in the software. In addition, an output module, which automatically generates standard tables, will be designed for the rayon level. This will include data that is required by WHO (TB-07, TB-10, TB-08, TB-11), as well as by national and local TB authorities. The exact contents will be defined during the design and technical support phases.

At the oblast level, the output module also will include epidemiological maps of registered TB cases and treatment results. Other program evaluation indicators such as conversion rates and risk-factor prevalence will be depicted on these maps as well. Further, it will be possible to evaluate outcome information quarterly by location (administrative territories, treatment facility), and by person (sex, age, and occupation). The oblast and national levels also will be able to use an operative analysis module, which allows individual data analysis. This will include both simple analyses (exposure-effect analyses in 2-by-2 tables, frequencies, tables, means, and graphs) as well as advanced statistics (linear and logistic regression and others). PATH will place emphasis on interpreting and applying data analyses to program monitoring and strategic planning.

A demonstration version of the system will be ready for field-testing by July 2004. After an initial roundtable presentation to partners, PATH will install a beta version in the Donetsk Oblast TB Hospital as well as in two rayon TB hospitals. It also will be installed at the ITP, WHO, and KNCV. This beta version then will be tested from July to September 2004, with monthly review and revision based on ongoing feedback. To facilitate communication, PATH will help establish e-mail service and a Ukraine electronic TB network. Emphasis will be placed on analytical techniques for using routine data for problem identification, strategic planning, commodities planning and management, and evaluating the impact of interventions. PATH will

facilitate the establishment of a TB-EMIS coordination team comprising personnel in Donetsk Oblast responsible for database entry and management and data analysis.

PATH will provide TB EMIS training to senior authorities who will be responsible for overseeing the system during and after the project. In addition, representatives from the ITP and the Donetsk and Kyiv City TB health system will receive training, as will representatives from Sevastopol, Kharkiv, Lutsk, and Kyiv. A total of three five-day training workshops are planned for senior officials. The first will be in September 2004 and will focus on basic TB-EMIS use and management. The second, to be held in September 2005, will focus on intermediate-level functions, and the third, in May 2006, will focus on advanced functions. PATH will design the training curriculum and a manual for use, while the TB-EMIS coordination team will identify appropriate participants.

In addition, two sets of specialized five-day training workshops will be conducted on data entry and data analysis, respectively. PATH aims to reach a total of 50 specialists (from Donetsk, Kyiv City, Kharkiv, Volyn, and Sevastopol). Each specialist will attend a total of four workshops—two on data entry (basic and refresher) and 20 on data analysis (basic and advanced).

To further strengthen local capacity to manage a TB EMIS, PATH will support two TB specialists responsible for data management and analysis to attend a four-day regional workshop on TB surveillance and epidemiology in the European region organized by WHO. This course will be held in Budapest, Hungary in November of 2004 and November 2005.

PATH will provide technical support for TB-EMIS throughout the project. This will include updating electronic applications based on user feedback and providing additional training and logistics support as needed. PATH also plans to disseminate project results through professional and lay journals and meetings and roundtables with partners. Further, an independent assessment of TB MIS component will be commissioned.

### *3.3. Develop tools and indicators for routine monitoring of diagnostic efficiency of various existing and new TB screening methods and strategies.*

The majority of this work has been described in the section on strengthening laboratory diagnosis and QA. Additionally, data regarding the proportion of TB cases confirmed by smear microscopy among TB-suspicious cases identified by family doctors will be collected and analyzed as part of routine TB MIS monitoring. These data will be drawn from reporting form TB-7a, “Frequency of new and relapsed smear-positive cases among people for whom microscopy was required within the PHC and TB structures.”

In addition, as part of this effort, PATH will undertake a small operations research study in Donetsk Oblast to define the sensitivity and specificity of miniature x-ray (fluorography) as a method for active TB case finding. The goal of the study is to provide local evidence regarding the effective yield of this approach to case-finding in Ukraine. While it is well-known that x-ray is not an effective (or cost-effective) approach to case-finding, little local evidence exists. A 100-sample-testing panel of 33 true-positive cases and 67 true-negative controls will be selected from several TB dispensaries. True positive TB-cases will be selected among TB-patients, confirmed

by pulmonary x-ray, and TB-positive microscopy and culture. True-negative controls will be selected among patients with non-specific pulmonary diseases defined as “Non TB”, confirmed by pulmonary x-rays and TB-negative microscopy and culture. An ID number will be randomly assigned to each x-ray film. TB specialists, selected from Donetsk, Volyn, Kharkiv, Sevastopol, and Kyiv will each receive a testing panel. They will be asked to indicate whether the x-ray represents a TB-case or a non-TB case. Sensitivity, specificity, and positive predictive value will be calculated using 2 x 2 tables.

*3.4. Support institutionalization of the TB information management system to assess drug susceptibility.*

Drug resistance will be monitored through an electronic surveillance system of drug resistance of *M. tuberculosis* (TB-EDRSS) isolated from TB cases and will comprise two components. For the first, TB laboratory primary data will be collected from the TB-06 form (Specimen referral for culture and drug susceptibility testing [DST]), which will provide information for laboratory management and on prevalence of drug resistance. The second component will be part of the general TB surveillance and case management system. Data will be generated from the modified TB-01 form, or, alternatively, data could be exported from the laboratory database. These data will provide information on the type of drug resistance (primary/secondary or mono-/poly-/multi). For this component, WHO’s freeware application will be applied and updated using Epi Info 2002.

*3.5. Develop and introduce model approaches for information system integration between TB and HIV programs to improve linkages and referral systems among facilities at the regional level.*

TB-HIV co-infection surveillance will be based on data regarding HIV status among all TB-registered cases. This surveillance will be integrated into the general TB surveillance and case management system. Although information on HIV status must be collected from all TB cases, these data will be unlinked to assure confidentiality. Other key ethical and legal issues related to collection of these data will be discussed with the TB-HIV surveillance group from WHO’s STOP-TB Partnership and with the MOH.

*3.6. Integrate pharmaceutical management into the TB management information system with data regarding drug consumption to ensure regular, reliable, and adequate supply of TB drugs.*

Information about drug type, dosage, and duration of treatment will be collected so that TB program managers can conduct retrospective and prospective aggregate analyses of drug use and expenditures. This information is required by the MOH’s drug management department, which is responsible for ensuring regular, reliable, and adequate supply of TB drugs, accurate forecasting, and efficient management of existing stock.

**Objective 4: Reduce diagnostic delay, increase case detection, and improve adherence to TB treatment by stimulating timely and appropriate health-seeking behavior for TB symptoms; implementing specific community mobilization strategies; increasing awareness and understanding of TB transmission, symptoms, treatment, and cure among the general public, as well as among specific populations at risk; and introducing culturally sensitive treatment support strategies for TB patients and their families.**



Behavior Change Communication (BCC) efforts play an important supportive role in achieving the goals of early TB diagnosis and treatment—and ultimately, disease eradication. The general population, community organizations, health care professionals, and families of TB patients must be educated and mobilized to participate. Community support and facilitation are essential to encourage individuals to seek health services for diagnostic examination and to ensure that they adhere to the full treatment regimen.

Based on its extensive formative research findings, PATH, with its partners, has developed a BCC strategy to improve public knowledge about symptoms of TB and the importance of obtaining appropriate treatment, with the goal of encouraging early detection and self-referral based on suspicious symptoms, reducing stigmatization of people with TB, and creating community support for treatment adherence, especially DOTS. We propose a multi-tiered approach targeting health professionals, communities, TB patients and their families, specific at-risk populations, and the general population. Increasing public awareness of TB will be achieved by developing and implementing accurate, culturally sensitive messages, materials and activities, and by identifying and implementing specific community-based social mobilization strategies. Based on the assessment results, the following interventions are proposed:

*4.1. Increase awareness and understanding of TB transmission, symptoms, treatment and cure among the general public and specific at-risk populations.*

PATH will work with local partners to develop and implement BCC strategies to support the national TB program and increase awareness and knowledge of TB prevention and treatment, especially DOTS. Baseline research indicates that many people delay going to the doctor when they have TB symptoms due to distrust of medical providers; lack of knowledge of TB transmission, symptoms and cure; lack of awareness of the importance of early diagnosis and treatment; and the misconception that TB care is expensive. Generalized social stigma towards TB as an illness that disproportionately affects the poor, homeless, alcoholics, and prisoners exacerbates the tendency to delay seeking care. Experience in other settings indicates that TB is rapidly de-stigmatized where cure is accessible; however, increasing public awareness is a necessary element.<sup>34</sup> Consequently, the main messages articulated in the print and electronic materials will include the following:

- TB is curable.
- TB treatment is free.
- Description of modes of TB transmission.
- Anyone can be infected with TB.
- If you observe TB symptoms (delineated), visit your doctor immediately.

Ukraine is a highly literate society with widespread access to the mass media. Thus, the educational campaign will employ television and radio spots complemented by widespread distribution of print materials. Print materials are an effective way of reaching secondary audiences as well because clients can share them with friends and family members. The combination of print and electronic media was effective during the recent WHO/PATH TB pilot

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<sup>34</sup> Dr. Ian Smith, WHO Medical Officer, Global Drug Facility. Presentation at the WHO Technical Seminar, *Tuberculosis Drug Management: Overcoming Challenges*, Washington DC, November 19, 2002.

project in Donetsk Oblast. An evaluation of that project found that public exposure to TB messages and materials increased from 44 percent before the campaign to 93 percent after the campaign. Exposure to TB messages on TV increased from 29 percent to 79 percent and exposure to TB posters increased from 1 percent to 66 percent. The IEC materials were found to have appropriate content, an attractive presentation, and clear messages for the general public. PATH will revise and reprint these TB materials for the general public developed during the pilot project in Donetsk. In addition, the team proposes to re-launch the mass media campaign in Donetsk Oblast, which reached every rayon, as well as to launch a campaign in Kyiv City. All materials developed, revised, or reprinted will be pre-tested with the target audience and evaluated for effectiveness and impact in both regions.

The following print and electronic materials will be developed and disseminated:

- Posters for general public. These will be displayed in public transportation (buses, trains, and metro), in open-air markets, and in other public venues such as hospitals, ambulances, stores, stations, enterprises, university campuses, cinemas, post offices, and social service offices
- Brochures for the general public and for specific at-risk populations such as former prisoners and homeless people, with referral information on where to seek medical assistance
- Booklets or brochures for PLHA that address basic TB information, common misconceptions, the importance of seeking timely health care, and current behavioral and medical factors relating to TB-HIV co-infection
- Two TV spots for the general public
- Three radio spots for the general public

PATH will monitor and evaluate the success of IEC materials and behavior change interventions and, using these monitoring and evaluation data, identify new materials, media messages, and story lines as the program develops.

**Distribution of Print Materials.** Health centers specialists, as well as TB doctors, general physicians, and nurses, will assist in distributing the printed materials in polyclinics, hospitals, maternity wards, TB dispensaries, private clinics, HIV Centers, and other health facilities. Brochures will be distributed in pharmacies especially to clients buying cough medicine. Volunteers and staff from local NGOs such as the Ukrainian Red Cross will help distribute materials to homeless people, food bank clients, and refugee populations, while medical providers from the prison system will distribute referral brochures to prisoners upon their release. PATH also will collaborate with district policemen in conducting outreach with former prisoners. Volunteers from the All Ukrainian Network of PLHA will distribute IEC materials to PLHA. In addition, the World Bank has agreed to assess, pretest, and reprint materials developed by PATH for its planned National TB IEC campaign.

**Mass Media Dissemination.** PATH likely will repeat the successful model for media campaigns used during the Donetsk pilot project when the project launched an eight-week radio and TV campaign twice a year. During the spring and fall campaigns, spots were broadcast two to three times a day, everyday. For this effort, the TV and radio spots that PATH developed previously will be revised and re-broadcast simultaneously in Donetsk Oblast and Kyiv City. The spot scenarios and scripts will be altered to meet the informational needs identified by the baseline

research, and new spots will be developed. PATH will seek specialized technical assistance from a private media agency to manage electronic media production. TV and radio spots will be broadcast in all rayons of Donetska Oblast and in Kyiv City on multiple channels and stations. PATH expects that local rayon TV channels in Donetska Oblast will contribute some free airtime for the TB educational spots. The health centers in Donetska Oblast also have agreed to arrange for at-cost broadcast on local TV and radio stations in the region. In addition, PATH and the World Bank project are currently negotiating the extent to which we may also collaborate on mass media broadcasting.

**Other Awareness-Raising Events.** In collaboration with WHO, KNCV, WB, Ukrainian National Red Cross and other international and national partners, PATH will plan public awareness-raising events coinciding with World TB Day and World AIDS Day. The project will also organize media workshops in the two regions to ensure that the local media have accurate and up-to-date information about TB and efforts to control the epidemic in Ukraine.

**IEC Materials Development Workshops.** To increase local capacity to develop and maintain public information dissemination, PATH will conduct two trainings in IEC message and materials development methodology. PATH will collaborate with local health education centers, local staff of the NTP, and local health administration authorities to identify the most appropriate participants for the workshops. The trainings will strengthen local capacity to use formative research results to develop an IEC strategy and to design, pretest, produce, and disseminate key materials and messages. Workshop participants will then play an integral role in carrying out the overall BCC strategy over the course of the project and will be proposed to the MOH of Ukraine as the resource to be used for NTP IEC materials development activities.

*4.2. Improve health-seeking behavior and treatment adherence among people diagnosed with TB by developing and implementing specific supportive materials for patients and their families and by implementing specific community-based strategies on treatment adherence.*

**Educational Materials for TB Patients.** The baseline exit survey data indicate a clear need among TB patients for additional information about TB, the required full treatment course, and psychosocial care and support. Patients also lack information about their right to medical privacy and confidentiality, how to talk with family members about TB, and information about TB disease progression and infectiousness. The relatives and families of TB patients also need information about preventing transmission, treatment adherence, and how to support their loved one during treatment. The main messages in printed materials for TB patients will include the following:

- TB is curable.
- TB treatment is free.
- Description of modes of TB transmission and specific information about infectious forms of TB.
- The importance of following the full treatment course until cured to avoid developing multidrug resistance.
- Basic medicines for treating TB and common side effects.
- Treatment calendar.

- Confidentiality of medical information.
- Information about home care and how family members can help.

Towards this end, PATH will develop both a trifold brochure for TB patients as well as a 12-page booklet for patients and families. Printed materials for patients contribute greatly to competent TB counseling and care and thus will be provided to TB doctors in sufficient quantities to be given to all TB patients.

**Telephone Hotline.** In addition to developing print materials for TB patients, PATH will work with the Donetsk Oblast TB Hospital to establish and maintain a telephone hotline as part of the BCC strategy. The need for a telephone hotline emerged from meetings with authorities at the hospital who expressed the need for providing a confidential venue for patients, their families, and the general public to ask questions about TB diagnosis, care, and treatment. Baseline research indicated as well that patients are reluctant to ask general doctors for this kind of information, and often lack a forum for free, accessible, confidential information. As a result, some patients delay seeking care at a TB dispensary. The hotline will be staffed by trained TB nurses and evaluated by PATH project staff. After the first year of operation, a decision will be made about establishing a similar hotline in Kyiv.

**Outreach and Community Support Activities.** To ensure the success of the WHO TB control strategy, PATH will develop community-based support programs in collaboration with the Ukrainian Red Cross to conduct outreach among specific populations at high-risk for TB infection. The Red Cross and other NGOs have volunteers, nurses, and medical personnel who can make visits to social service centers such as food banks to provide mobile TB counseling and referral information and distribute IEC materials to low-income people and refugees. Additional medical staff will make weekly visits to the homes of TB outpatients to check on treatment adherence. They will follow-up with home visits to TB patients who don't return to the TB dispensaries on time for drug treatment. These actions will help de-stigmatize TB and provide a supportive environment for implementation of the WHO control strategy. Other organizations that work specifically with PLHA, such as the All-Ukrainian Network of PLHA, will help ensure distribution of IEC materials and referral information among PLHA.

Because the incidence of TB in Ukraine is increasing among women, which, in turn, has a significant impact on the socioeconomic life of the family and on reproductive health, PATH proposes to conduct supplemental formative research to examine gender-based differences that may impact successful case treatment. Gender-sensitive approaches then will be used to tailor messages and interventions for different groups.

Finally, PATH proposes to conduct additional survey research to assess the factors affecting patient adherence to treatment among a representative sample of patients in Donetsk Oblast. The goal of this study will be to identify factors that encourage or hinder both health-seeking behavior and completion of treatment. Data will be collected via two principle sources. First, PATH will undertake a retrospective survey of patients who either completed their treatment or defaulted. The survey will explore the key factors that influenced treatment completion, including the availability of incentives, cost of care, distance to services, family support, etc. Additional data will be extracted from the new TB MIS and will analyze potential associations

between patient or doctor delay as an exposure factor and disease severity or/and treatment outcome as the effect. Multivariate analyses will look at the effect of demographics or other potential factors. PATH anticipates that the results of this study will help to develop additional outreach and BCC strategies as well as identify additional indicators that can be used to improve evaluation of the NTP.

**Objective 5: Improve provider practices by strengthening provider capacity to diagnose and treat TB based on DOTS, improving systems to support appropriate referral of TB cases, and enhancing knowledge of and response to HIV/TB interaction, with emphasis on appropriate counseling and client-provider interaction with emerging populations at risk.**

The rapid increase in TB incidence, as well as in HIV infection rates, has created an urgent need to update health provider knowledge and reorient service delivery to emerging at-risk populations, including women and people living with HIV. Referral of HIV-positive individuals for TB testing, HIV testing for TB patients, and counseling related to dual infection are essential to eliminating TB and reducing death from TB among people living with HIV. Therefore, PATH will augment its efforts to improve client-provider interaction and counseling among TB specialists with specialized training to improve HIV knowledge support cross-referral of patients. PATH will adapt existing training curricula for use with TB and HIV professionals in Donetsk and Kyiv City. PATH will invite HIV Center personnel to the workshops as well, as their knowledge of TB and the importance of TB screening and early detection also needs to be strengthened. Additional materials also will be developed for both general health providers and TB specialists.

**Training to Improve Provider Performance.** PATH's baseline research highlights the need to improve TB provider skills in interacting with and counseling patients. The exit survey demonstrated that many patients were not satisfied with their doctor's ability or willingness to express empathy, explain their treatment options, provide sufficient verbal or written information, or offer them guidance on how to talk with their family members about their illness. PATH's experience in Ukraine suggests that strengthening interpersonal communication and counseling (IPC/C) skills among key medical providers is critical. During the pilot project in Donetska, PATH provided several two-day trainings for providers on the key principles of effective IPC/C in Donetska and Mariupol. PATH will build on this initial effort in Donetska, expanding and deepening the training of providers in IPC/C skills (including VCT for HIV) throughout the oblast, as well as introducing this training in Kyiv City in the context of the KNCV effort. These workshops will aim to improve communication skills of providers and emphasize the key role of good client-provider communication and effective use of IEC materials in successful treatment. Increasing the sensitivity of providers to TB patients' needs may contribute to improved follow-up and treatment compliance as well as to reducing stigma. In Donetska, the project will expand on the pilot orientation to introduce a more in-depth training, and in Kyiv the project will initiate a new series of trainings. A total of 12 workshops will be conducted each year, with approximately 16-18 medical providers taking part in each one. PATH will further refine its training curriculum on IPC/C for TB medical providers and will collaborate with the Donetska Medical University TB Department to encourage adoption of this curriculum into its pre- and postgraduate programs.

**IEC Materials for Providers.** PATH will work with local partners to develop informational materials for general health care providers as well as TB specialists. These materials will vary in detail, depending on the target audience. Most will include basic information, such as modes of transmission and specific information about infectious forms of TB, basic medicines for treating TB and common side effects. In addition, the materials will seek to address the need to reduce stigma, increase provider awareness of the importance of confidentiality, and provide tips for communicating with patients and families. Print materials likely will include the following:

- Trifold brochure on basic TB and referral information for medical providers in general health care settings.
- Booklet (12 sheets folded in half, stapled), for medical providers in TB facilities.
- Job aid (poster size) for personnel in TB facilities, focusing on key elements of training such as confidentiality and voluntary counseling and testing.

### **Roles and Responsibilities of Collaborating Organizations**

PATH already has strong ties with the Donetsk Oblast TB Dispensary through the collaboration with WHO in Donetsk. PATH solicited extensive feedback from Dr. Oleg Karatayev, Chief Doctor, on how best to complement the current modified DOTS introduction strategy. This Dispensary will be PATH's key MOH link in Donetska Oblast, through which we will work with all other relevant facilities within the Oblast to implement the project. The Kyiv City TB Dispensary will be PATH's key partner for its work in Kyiv City. PATH has discussed its proposed interventions with Chief Doctor, L. V. Turchenko, who is supportive. PATH also will work closely with the F.G. Yanovsky Institute of Tuberculosis and Pulmonology, which houses the country's TB research laboratory.

Until 2000, the Ukrainian Red Cross Society (URCS), through the national office and its oblast chapters, implemented a project called "The Red Cross Against Tuberculosis and AIDS." As part of this effort, the URCS provided 40,000 TB patients with food and hygiene kits and produced a number of informational and educational materials aimed at TB prevention. Under its auspices, the URCS maintains a Visiting Nurse Service, which has been used to provide social assistance to TB patients. The URCS is a vital group through which community mobilization and education in support of DOTS, especially among vulnerable populations, will be implemented and through which the link between HIV and TB can be strengthened.

The Royal Netherlands Tuberculosis Association (KNCV) provides assistance internationally on TB surveillance, research, training and capacity building, and health education. At the time of proposal submission, Dr. Jaap Veen, Director of European Programs, expressed interest in collaborating with PATH in the context of its current, EU-funded TB control program in Kyiv City. Our proposed focus areas will be complementary to KNCV's anticipated strategy. For example, PATH will not duplicate the training to laboratory workers and medical providers regarding smear preparation and analysis. Rather, we will focus our efforts on ensuring that proper laboratory-based quality control procedures are strengthened and maintained.

Because of the existing collaboration with WHO to implement a pilot, modified DOTS program in Donetska Oblast, PATH has strong relationships with key WHO personnel in Ukraine, including Dr. Kestutis Miskinis, Project Director in Donetsk, and Dr. Yuriy Subbotin, WHO

representative in Kyiv. Both expressed interest in PATH's further assistance to establish sustainable smear microscopy quality assurance procedures; augment its current public awareness activities and develop and evaluate community mobilization interventions; strengthen provider counseling skills, especially related to encouraging TB and HIV screening; and support WHO's efforts to strengthen surveillance. WHO's role will remain focused on clinical training for medical providers, monitoring surveillance efforts, and advocating for political support for DOTS at the national level.

Finally, since PATH submitted its proposal, the World Bank loan on TB and HIV has been approved. Approximately \$28 million of the \$60 million loan will be allocated for TB programming. Much of this money will support purchase of new laboratory and clinical equipment and supplies, drug procurement, public awareness, and clinical training. PATH is currently in discussions with the Bank in Kyiv to determine how best to leverage this investment.

## **G. Anticipated Constraints to Implementation**

As noted in the assessment data, the adoption of the WHO-recommended approach to TB control still faces considerable resistance in Ukraine, especially at the national level. Providers, too, remain skeptical of new approaches due to critical differences in understanding regarding disease infectiousness and cure. Further, because a DOTS-based approach implies, for example, integration of TB control more broadly into general health services and much shorter hospitalization stays, the TB health infrastructure itself is being challenged. In a country where medical care is highly vertical, and budgets are allocated on the basis of numbers of beds, this is very threatening to the TB establishment. In addition, while the World Bank, the European Union, and USAID all have made important investments in TB in Ukraine, the overall health care system remains severely under-funded, with doctors earning paltry wages and conditions remaining generally poor. Other important constraints stemming from the complicated political environment include the continuing uncertainty about the establishment of a National Reference Laboratory, which has bearing on PATH's ability to help establish a solid QA/QC system, and the challenge inherent in needing to collaborate with numerous national and international entities. In addition, there are virtually no local NGOs focusing on TB control, and therefore, government sector efforts are not effectively complemented by community-based inputs. Certainly, the burgeoning HIV epidemic—and Ukraine's ability to stem it—will greatly influence the course of the TB epidemic. In addition, the common use of first- and second-line drugs in the absence of standardized guidelines increases the risk of accelerating the spread of drug resistance, which could pose the greatest threat to successful TB control.

### **1. Access to Commodities**

The principal commodities required for PATH's technical assistance are available. These include TB drugs, laboratory and clinical equipment, and consumable supplies. In Donetsk, WHO has provided many essential items to selected laboratories and clinics, while KNCV is providing a wide range of similar commodities to laboratories and clinics in the city of Kyiv. PATH's assessment indicated that there are still a few gaps—for example, several facilities remain in need of decent centrifugation—and PATH will supply these materials. For those laboratories and clinics that are still in need of a broad array of basic equipment and supplies, the World Bank

loan is expected to cover procurement. Regarding drug supply, the Verkhovna Rada and the Government of Ukraine have declared that TB control is a national priority, and the supply of first-line TB drugs has been sufficient to meet the needs of all TB patients for the last two years. The supply of second-line drugs is expected to stabilize due to the World Bank loan.

## **2. Sustainability and Capacity Building**

PATH will work closely with the ITP and the MOH—the two government bodies in Ukraine that oversee the National TB program. In addition, for the policy and advocacy, laboratory, and surveillance components, working groups have been or will be established comprising local authorities, clinical specialists, local NGOs, and international colleagues to ensure that genuine collaboration and local ownership is fostered throughout the project period. Our goal is to enhance the capacity of Ukraine’s general health and TB systems to implement, monitor, and evaluate a successful TB control effort based on WHO recommendations. The measure of PATH’s success will be reflected in changes in political will and legislation, improved laboratory internal and external quality assurance schemes, a strong surveillance system that allows proper monitoring and evaluation of the program’s efficiency and effectiveness, and changes in behavior among providers and patients that reduce delays in diagnosis, improve the quality of patient-provider interaction, and increase adherence to treatment. All training materials and curricula will be prepared in collaboration with local partners, and local trainers will gradually assume responsibility for conducting all training workshops. Further, PATH will work with local medical education institutions to integrate relevant curricula into pre- and post-graduate education. By the third year of the program, PATH’s role is expected to focus largely on monitoring progress of local partners in implementing key activities.

## **H. Program Monitoring and Evaluation Plan**

As with any TB control program, cohort analysis is the primary method of monitoring and evaluation. Given the multiple inputs into the TB control program in Ukraine, especially in Kyiv City and Donetsk Oblast, however, cohort analysis results will reflect collective effort, rather than PATH’s sole contribution to building local TB control program capacity. All key TB control indicators, as required by USAID, will be monitored, including those required for IEC activities. (See Attachment E for a list of USAID-required TB program indicators.) In addition, for each component, PATH has selected indicators that will be used to monitor and evaluate the success of specific project component inputs.

**Policy and Advocacy Support.** Key indicators for this component include the proportion of national and oblast TB policymakers and specialists who support the WHO-recommended approach (based on the baseline and follow-up surveys); the number of new or revised pieces of legislation passed that are supportive of the WHO strategy; and whether or not DOTS expansion has been able to proceed.

**Laboratory Strengthening.** To monitor and evaluate progress towards PATH’s objectives to strengthen smear, culture, and drug susceptibility testing QA and QC according to WHO recommendations, the following indicators will be measured:



- Percentage of pilot facilities proficient in smear microscopy
- Percentage of smears that are readable, of adequate quality
- Accuracy of recordkeeping of specimens received, processed and laboratory results
- Percentage of laboratories capable of identifying MTB
- Percentage of laboratories performing TB drug sensitivity test
- Documented evidence that smear microscopy results were used to make treatment decisions

After the completion of the initial rounds of training, the PATH laboratory specialist will make monthly monitoring visits to laboratories to assess progress and identify areas needing further attention. Evaluation data will be based on checklists, observation, QC data, and registry and logbook reviews. In addition, PATH will review panel-testing results that will be introduced as part of a comprehensive QA system. The laboratory-working group also will play a key role in monitoring this component. Monitoring results will be reported to and discussed quarterly with the chief oblast specialist for general health care and for TB and Oblast TB Hospital. Ongoing monitoring data also will be provided to KNCV and WHO experts.

**Strengthening TB Surveillance Systems.** To monitor and evaluate the success of this component, both qualitative and quantitative methods will be used. Ongoing monitoring will occur collaboratively with key partners and will include reviews of the following: surveillance system coverage; completeness of data for indicators related to TB control programming at all levels; the degree to which surveillance reports correspond to established criteria; and review of documentation indicating systematic use of TB MIS data for problem identification, and resolution, general program management, and enhanced TB control at various levels. In addition, PATH will undertake quarterly monitoring visits with oblast and national authorities to the project sites. During these visits, the proportion of routine quarterly TB surveillance reports that meet recommended standards will be analyzed. This will include an analysis of quantitative data (i.e., the proportion of indicators for which data exist, the sensitivity and positive predictive value of the reporting system) and qualitative data (timeliness, consistency, and quality of information transmission, storage, and analysis). Registers and other record-books also will be reviewed. In addition, PATH will carefully analyze field feedback on the usefulness and acceptability of the TB-EMIS through interviews with data operators, analysts, TB managers, and local and national authorities. PATH will provide summaries of monitoring and evaluation reports to USAID, national partners (ITP, MOH), international partners (WHO, KNCV), and oblast TB program managers. It is important to note that for some indicators, such as HIV-attributable morbidity and mortality, linkages with other data sets (i.e., HIV) and access to HIV tests in TB clinics will affect the extent to which data can be collected. Currently, HIV testing is not conducted in TB facilities.

**Behavior Change Communication.** Evaluation of BCC strategies will rely primarily on baseline and follow-up surveys with the general public, specific at-risk populations, patients, and providers to assess changes in:

- Exposure to media messages.
- Knowledge and awareness of TB transmission, symptoms, and the importance of early detection and treatment.
- Demand for TB counseling and testing.

- Patient satisfaction regarding provider counseling and education.
- Provider knowledge of TB and HIV transmission.
- Perceived family support for DOTS patients.

In some cases, survey data will be supplemented by focus groups, in-depth interviews, or other qualitative methods. Cohort analysis data also will be reviewed carefully regarding changes in treatment completion and failure rates, and severity of disease at the time of diagnosis.

## I. Workplan Matrix: Support to Ukraine in Implementing Its National TB Program

OBJECTIVES (Lead Staff)	INDICATORS (Bolded indicators are required by USAID)	MEASUREMENT METHODS	MAJOR PLANNED ACTIVITIES	TIMING/ STATUS
<b>1. Improve capacity for DOTS expansion within Ukraine (A. Tsarenko)</b> 1.1. Monitor development of new legislation and recommend additions/revisions 1.2. Convene technical symposia 1.3. Increase access to up-to-date technical literature among TB decision-makers and specialists	<ul style="list-style-type: none"> <li>Percentage of national and oblast authorities supporting DOTS</li> <li>Number of new pieces of legislation in support of DOTS (TB control approaches recommended by WHO)</li> <li>Selection of “expansion oblasts” made or not</li> <li>Expansion activities in at least one additional oblast initiated or not</li> <li>Number of project partners, key local TB experts, and officials attended regional or international technical conferences and meetings and participated in Annual National TB symposia</li> </ul>	<ul style="list-style-type: none"> <li>Baseline and follow-up survey of policymakers</li> <li>Legislative records</li> <li>Site visits</li> </ul>	<ul style="list-style-type: none"> <li>Assess current level of national and oblast support</li> <li>Set up Policy and Advocacy Consulting Group to assist the MOH in developing and implementing appropriate orders</li> <li>Convene quarterly Policy and Advocacy Consulting Group Meetings</li> <li>Convene regional and national symposia on various topics related to improved TB control</li> <li>Participate in key national meetings and committees related to TB control in Ukraine</li> <li>Distribute key literature via print, e-mail, web, or meetings</li> <li>Support key local TB experts and officials to attend regional or international technical conferences and meetings</li> <li>Develop criteria for selection of the third region and conduct assessment</li> </ul>	Years 1 and 3  Year 1  Quarterly  2 in 2005; 1 in 2006  Years 1-3  Years 1-3  As possible  Year 2
<b>2. Improve the quality of TB diagnostic services in at least two oblasts (T. Ivanenko)</b> 2.1. Introduce direct smear microscopy QC systems in general health care and TB labs in Donetsk 2.2. Develop guidelines and introduce QC for culture and identification tests for MTB 2.3. Strengthen DST + MDR monitoring 2.4. Evaluation of new TB tests 2.5. Dissemination of results	<ul style="list-style-type: none"> <li>Percentage of pilot facilities proficient in smear microscopy</li> <li>Percentage of smears that are readable, of adequate quality</li> <li>Accuracy of recordkeeping of specimens received, processed and laboratory results</li> <li>Percentage of laboratories capable of identifying MTB</li> <li>Percentage of laboratories performing TB drug sensitivity test</li> <li>Documented evidence that smear microscopy results were used to make treatment decisions</li> <li>Evaluation data available on new diagnostic tools in selected sites</li> </ul>	<ul style="list-style-type: none"> <li>ITP, oblast, and laboratory reports on smear microscopy proficiency</li> <li>ITP and oblast reports on MTB identification</li> <li>ITP and oblast reports on TB drug sensitivity test</li> <li>Monthly site visits</li> <li>Evaluation of laboratory and TB control registries at TB dispensaries</li> <li>Review of medical records; interviews with providers</li> <li>Feedback analysis from stakeholders, decision-makers, providers, patients</li> </ul>	<ul style="list-style-type: none"> <li>Assess existing capacity to implement, document, and sustain QC for smear microscopy and culture methods in project sites</li> <li>Identify and train oblast teams to implement QA procedures in project sites</li> <li>Conduct ongoing monitoring of implemented QA procedures</li> <li>Assess alternative diagnostic methods to serve as adjuncts or replacements to smear microscopy</li> </ul>	Year 1  Years 1-2  Year 1-3  Years 2-3

OBJECTIVES (Lead Staff)	INDICATORS ( <b>Bolded</b> indicators are required by USAID)	MEASUREMENT METHODS	MAJOR PLANNED ACTIVITIES	TIMING/ STATUS
<p><b>3. Improve use of monitoring and surveillance data for TB program management (A. Dadu)</b></p> <p>3.1. Evaluate and revise current DRRS forms and introduce analytic methods to assess patient progress and treatment outcome, overall program performance, and rapid managerial assessment protocols</p> <p>3.2. Design and implement a TB EMIS for surveillance and case management of registered TB cases</p> <p>3.3. Develop tools and indicators for routine monitoring of diagnostic efficiency and effectiveness of existing and new TB screening methods and strategies</p> <p>3.4. Support institutionalization of TB MIS to assess drug susceptibility</p> <p>3.5. Develop and introduce model approaches for information system coordination and integration between TB and HIV programs to improve linkages and referral systems among facilities</p> <p>3.6. Integrate pharmaceutical management into the TB MIS with data providing about drug consumptions.</p>	<p>To measure maturity of TB MIS structure and elements:</p> <ul style="list-style-type: none"> <li>Proportion of population under surveillance system</li> <li>Number of major WHO-recommended, <b>USAID-required TB cohort indicators*</b> that can be accurately measured and monitored at the national, regional and local levels (e.g., <b>treatment success rate, case detection rate, cure rate, completion rate, failure rate, default rate, and transfer-out rate</b>, as well as incidence, prevalence, and mortality rates, HIV-attributable TB morbidity and mortality; primary and acquired MDR rates; diagnostic yield of existing and new TB screening methods and strategies; and TB drug consumption rates)</li> </ul> <p>To measure quality and flow of TB surveillance/program information:</p> <ul style="list-style-type: none"> <li>Proportion of routine monthly TB surveillance reports that meet established criteria</li> </ul> <p>To measure strengthened analytical and information based management capacity of health workers:</p> <ul style="list-style-type: none"> <li>Documented use of TB information system for preparedness and enhanced TB control/response at all levels of health system (e.g., for priority setting, advanced planning, resource mobilization and allocation, TB drug supply monitoring, case detection, lab QA, case management, treatment compliance, and monitoring MDR.)</li> </ul>	<ul style="list-style-type: none"> <li>Review of surveillance data from all rayons</li> <li>Evaluation of documentation at facilities, TB dispensaries, and SES (electronic database, registers, record-books, workbooks, admin reports, analytical tables/graphs) as well as reports/results of special TB epidemiologic studies.</li> <li>Evaluation of reports, registers, record-books, forms, and workbooks</li> <li>Review of reports, protocols, orders, and interviews of health managers and practitioners</li> </ul>	<ul style="list-style-type: none"> <li>Form Discussion Group on TB MIS</li> <li>Analyze oblast situation regarding TB MIS: identification of needs, priorities, available resources, behavior/motivation issues, obstacles to desired performance, and actions necessary to solve problems</li> <li>Develop recommendations and action plans</li> <li>Design and implement a TB EMIS</li> <li>Develop/adapt key tools and methods on analytic methods for health providers, laboratory workers, etc.</li> <li>Conduct workshops and on-the-job training in new analytic procedures and on using information for management</li> <li>Monitor and evaluate implementation, provision of technical assistance as needed</li> <li>Assist with further modification and revision of the system based on feedback from the piloted region(s)</li> <li>Conduct comprehensive review of the reform results in the pilot regions and formulate recommendations for future directions</li> <li>Create a Ukrainian TB Internet Forum, listserve, electronic TB library</li> <li>Disseminate results through symposia, seminars, and/or a national meeting</li> <li>Provide technical assistance to adopt reforms in other regions</li> </ul>	<p>Year 1</p> <p>Year 1</p> <p>Year 1</p> <p>Year 1-3</p> <p>Years 1, 2</p> <p>Years 1-3</p> <p>Years 1-3</p> <p>Years 2-3</p> <p>Year 3</p> <p>Year 1</p> <p>Years 1-3</p> <p>Year 3</p>

\*Data will be collected or obtained from the NTP on all USAID-required indicators. PATH will focus particularly on the quality of these data, not just whether or not they were collected, however.

OBJECTIVES (Lead Staff)	INDICATORS ( <b>Bolded</b> indicators are required by USAID)	MEASUREMENT METHODS	MAJOR PLANNED ACTIVITIES	TIMING/ STATUS
<p><b>4. Reduce diagnostic delay, increase case detection, and improve adherence to TB treatment (K. Gamazina)</b></p> <p>4.1. Increase awareness and understanding of TB transmission, symptoms, treatment, and cure among the general public and at-risk populations</p> <p>4.2. Improve health-seeking behavior and treatment adherence among people diagnosed with TB</p>	<ul style="list-style-type: none"> <li>Change in public awareness of TB transmission, symptoms, need for early diagnosis and treatment</li> <li><b>Proportion of population aware of at least two symptoms of TB</b></li> <li><b>Proportion of population who know that TB is curable</b></li> <li>Number of articles, radio shows, and TV spots that accurately cover TB</li> <li>Percentage of TB cases being detected early</li> <li>Percentage of patients using DOTS</li> <li>Percentage of patients completing full treatment</li> </ul>	<ul style="list-style-type: none"> <li>Baseline and follow-up surveys and focus groups in target oblasts</li> <li>Monthly review of key local news media</li> <li>Medical records; provider survey</li> <li>SES and TB Dispensary treatment data</li> <li>SES and TB Dispensary treatment data</li> </ul>	<ul style="list-style-type: none"> <li>Validate formative research for development of messages, strategies, and appropriate media for behavior change interventions</li> <li>Develop/expand mass media (TV, radio, video) to educate groups about the importance of prompt diagnosis and proper treatment of TB</li> <li>Expand distribution of print materials for specific at-risk audiences</li> <li>Convene media workshops for journalists</li> <li>Create telephone hotline in Donetsk</li> <li>Assess existing community networks for various patient groups</li> <li>Develop and test model strategies for various target groups</li> <li>Develop materials and support mechanisms for families, including materials with appropriate treatment and care information</li> <li>Develop supportive materials for providers and patients</li> <li>Implement research on factors affecting treatment adherence</li> </ul>	<p>Year 1</p> <p>Year 1-2</p> <p>Year 1-2</p> <p>Year 1-3 Year 1 Year 1</p> <p>Year 2-3</p> <p>Year 1-2</p> <p>Year 1-2</p> <p>Year 2</p>
<p><b>5. Improve provider practices by strengthening provider capacity to diagnose and treat TB based on DOTS (K. Gamazina)</b></p> <p>5.1. Finalize training curriculum on interpersonal communication &amp; counseling</p> <p>5.2. Train TB providers in IPC/C and VCT</p> <p>5.3. Work with Donetsk Medical University to incorporate IPC/C curriculum into training curricula for TB doctors</p> <p>5.4. Evaluate training activities</p>	<ul style="list-style-type: none"> <li>Change in demand for TB counseling and testing</li> <li>Change in patient satisfaction among patients regarding provider counseling and information dissemination</li> <li>Number/percentage of cross-referral for TB+/ HIV+ patients</li> <li>Percentage of TB cases being detected early</li> <li>Percentage of patients using DOTS</li> <li>Percentage of patients completing full treatment</li> </ul>	<ul style="list-style-type: none"> <li>Medical records, provider survey</li> <li>Patient survey or exit interview</li> <li>Medical records, provider survey</li> <li>SES and TB Dispensary case detection data</li> <li>SES and TB Dispensary treatment data</li> <li>SES and TB Dispensary treatment data</li> </ul>	<ul style="list-style-type: none"> <li>Assess provider knowledge</li> <li>Prepare information materials</li> <li>Expand training on interpersonal communication and counseling, with focus on emerging risk groups</li> <li>Adapt existing PATH curricula on VCT for use with TB providers</li> <li>Implement training to improve HIV/TB co-infection knowledge and strengthen counseling skills and referral for HIV testing</li> </ul>	<p>Year 1</p> <p>Year 1-2</p> <p>Year 1-3</p> <p>Year 1-2</p> <p>Year 1-3</p>

OBJECTIVES (Lead Staff)	INDICATORS ( <b>Bolded</b> indicators are required by USAID)	MEASUREMENT METHODS	MAJOR PLANNED ACTIVITIES	TIMING/ STATUS
	<ul style="list-style-type: none"> <li>Change in provider knowledge of TB/HIV management</li> </ul>	<ul style="list-style-type: none"> <li>Interviews and/or surveys with providers; training pre/post test questionnaires</li> </ul>		

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## **Attachment A**

### **Baseline Assessments**

# **Exit Survey of TB Outpatients: Report on Baseline Data Collection**

*For the project:*

**Support to Ukraine in Implementing Its National TB Program**



**April 2004**



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## **Attachments**

Attachment A: Exit survey for outpatients

## Acknowledgements

The following PATH consultants conducted the exit survey interviews:

- Nataliya Zaika - Donetsk, Dzerzhynsk, Kyiv
- Eugene Ivahnenko - Slaviansk, Shakhtersk, Gorlovka
- Galina Kurapova - Mariupol, Makeievka, Enakievo

PATH staff Siri Wood, Svitlana Okromeshko, Andrei Dadu, and Alexey Bogdanov participated in the data analysis. Siri Wood is the primary author of this report. PATH would like to gratefully acknowledge the assistance of Dr. Oleg Karataev, Chief Doctor of Donetsk Oblast TB Dispensary, and Dr. Alexander Klochkov, Chief Doctor of Donetsk City TB dispensary in arranging for the survey in different TB dispensaries of Donetsk Oblast; and Dr. Leonid Stadnik, Chief Doctor of Kyiv City TB Dispensary #1 and Natalia Filonenko, Deputy Chief Doctor of the Central City TB Dispensary in Kyiv.

## Executive Summary

The following research was conducted for the project, “Support to Ukraine in Implementing Its National TB Program,” managed by Program for Appropriate Technology in Health (PATH) in collaboration with the World Health Organization (WHO) and the Royal Netherlands TB Association (KNCV). The project’s goal is to improve tuberculosis (TB) case detection and management in Kyiv City and Donetsk Oblast. The project is working to implement the WHO-recommended TB control strategy (formerly called DOTS), thereby contributing to a reduction in public health risk of TB and a reduction in the rate of transmission in the project areas.

PATH project staff designed an exit survey of patients leaving TB facilities to evaluate their satisfaction with client-provider communication. The goal of the survey was to collect baseline data on aspects of provider performance that can be improved through training. A summary of additional baseline data collected, as well as proposed behavior change activities, is provided in the project’s Detailed Implementation Plan.

A total of 312 men (61%) and women (39%) were interviewed: 164 patients from nine facilities in Donetsk and 148 from two facilities in Kyiv. Most patients had made between one and three visits to the facility, and it took 30-60 minutes for them to travel to the facility. Most (59%) spent 30-60 minutes in the TB facility, and an additional 15% spent up to 90 minutes there. Data were analyzed in aggregate as well as disaggregated by location and by sex. Remarks regarding disaggregated data are made only when results were found to be significantly different.

## Findings

- The majority of respondents said that they were satisfied with the doctor’s ability or willingness to make them feel comfortable (60%), and to treat them respectfully (63%). More respondents in Donetsk (27%) than in Kyiv (14%) responded that they were very satisfied with the doctor’s ability or willingness to make them feel comfortable. Similarly, more respondents in Donetsk (35%) than in Kyiv (16%) said that they were very satisfied with the doctor’s ability or willingness to treat them respectfully.

- Overall, 34% said that they were satisfied with the doctor's ability or willingness to allow them to share concerns and questions about their health, and another 34% said that they were not satisfied. Nearly half of patients in Kyiv (48%) and 21% of patients in Donetsk report being not satisfied.
- One quarter (25%) stated that they were not satisfied with the doctor's ability or willingness to understand their concerns, while 43% stated that they were satisfied. The percent of respondents in Donetsk who were very satisfied (25%) surpassed the percent in Kyiv (7%). Significantly more respondents in Kyiv (51%) than in Donetsk (35%) answered satisfied.
- The majority (53%) stated that they were satisfied with the doctor's ability or willingness to express empathy. More respondents in Kyiv (69%) stated that they were satisfied, whereas in Donetsk, responses spanned the range, as follows: not satisfied (20%), satisfied (39%) and very satisfied (30%).
- The vast majority (85%) stated that they were not bothered by how the doctor dealt with disruptions.
- The vast majority (77% in Donetsk, 73% in Kyiv) said that the doctor's office provided acceptable privacy. When the data were disaggregated by sex, the proportion of women who responded affirmatively (84%) slightly surpassed the percentage of men (77%).
- Overall, 79% said that the doctor did not assure them that their medical information would be confidential, including 61% of respondents in Donetsk, and 98% of respondents in Kyiv.
- Sixty-four percent were satisfied with the doctor's gestures and non-verbal expressions. An additional 23% stated they were very satisfied and only 14% were not satisfied or very dissatisfied. Significantly more patients in Donetsk (30%) than in Kyiv (16%) felt very satisfied with the doctor's performance in this area. A total of 80% responded that the doctor looked them in the eyes when talking with them.
- Overall, 39% of respondents said that they were not satisfied with the doctor's ability or willingness to explain information in language that they understood, whereas another 38% said they were satisfied. When disaggregated by location, a significantly higher proportion of patients in Donetsk (25%) reported being very satisfied compared to Kyiv (1%).
- The majority (43%) were very dissatisfied or not satisfied (24%) with the doctor's ability or willingness to explain the treatment options available to them. Significantly more patients in Kyiv were very dissatisfied (51% vs. 37%), whereas again more patients in Donetsk tended to be very satisfied (26% vs. 1%).
- The majority (57%) said that they were very dissatisfied with the doctor's ability or willingness to provide them with advice about how to talk with their family about TB. When disaggregated by location, however, there is a marked difference between Kyiv and Donetsk; in Kyiv, a total of 84% said they were very dissatisfied with this aspect, compared with 31% of patients in Donetsk. Conversely, the proportion of respondents in Donetsk that were very satisfied (28%) far surpassed the same category in Kyiv (1%).

## Conclusion and Recommendations

The exit survey provides baseline documentation of TB patients' opinions about provider performance. The same survey will be administered near the end of the project to measure the effect of project interventions related to improving client-provider interaction for TB-related care. Based on these data, as well as on the findings and observations of the interviewers during discussions with patients and TB medical providers, PATH recommends that a comprehensive three-day or four-day training program be developed to improve the interpersonal communication and counseling skills of physicians and possibly other providers. The training should emphasize skill-building in active listening, expressing sympathy, sharing of medical information in simple language, privacy and confidentiality, and how to communicate with a TB patient's family members.

## Background

PATH is currently implementing the project, "Support to Ukraine in Implementing Its National TB Program," to improve tuberculosis case detection and management in Kyiv City and Donetsk region. The three-year, USAID-funded project supports introduction of the WHO-recommended TB control strategy (formerly called DOTS), thereby contributing to a reduction in public health risk of TB and a reduction in the rate of transmission in the project areas. The project is implemented in collaboration with the World Health Organization, the Royal Netherlands Tuberculosis Association, Ukraine Ministry of Health, Kyiv City Central TB Dispensary, Donetsk Oblast Health Administration, and the F.G. Yanovsky Institute of Tuberculosis and Pulmonology.

One of the project's initial activities was to gather baseline data on knowledge, attitudes, and practices regarding TB among a sample of the general population and among specific populations particularly vulnerable to TB infection in the two project locations. Vulnerable populations include people who abuse alcohol or drugs, low-income or unemployed people, homeless people, refugees, people living with HIV or AIDS (PLHA), and former prisoners.

During the initial phase of the project, staff conducted a review of existing data and literature about these populations and held discussions with key informants. Formative research also was conducted, including a knowledge, attitudes, and practice (KAP) survey among the general public in Donetsk and Kyiv, and focus group discussions with PLHA. The goal of the formative research is to collect baseline data on the knowledge, attitudes, and practices of the general population; more deeply understand the needs, practices, and knowledge of vulnerable populations; and clarify the best channels and formats for bringing information to them. Together with the exit survey data, the findings of the formative research will guide the development of a comprehensive behavior change communications (BCC) strategy, including development of educational messages, materials, and training on health care providers. To complement this data, the present exit survey with TB clinic outpatients was designed. The exit survey aims to identify aspects of client-provider communication that can be improved through training. A description of baseline data and the proposed BCC strategy are provided in the Detailed Implementation Plan.

## Exit Survey Objectives

PATH conducted an exit survey among patients leaving TB clinics to collect information on patients' satisfaction regarding doctors' interpersonal communication skills. Information from TB patients regarding quality of provider interaction will be used to develop a training curriculum to strengthen physician counseling skills.

## Survey Design, Sample Size, and Location

PATH is using a pre- and post-intervention survey design. The follow-up survey will be conducted near the end of the project year three to measure potential changes in levels of satisfaction with client-provider interaction.

The survey instrument included 25 questions in a checklist format. Each questionnaire was marked with a facility code and questionnaire ID number. The interviewer explained the response scale to the participant, and administered the survey verbally. The purpose of the survey was explained to each participant, informed consent was obtained, and confidentiality of participant responses was assured. The survey interviews were conducted in a private room to ensure adequate comfort and confidentiality.

A total of 312 exit surveys were conducted: 164 in Donetsk and 148 in Kyiv City. The survey was conducted in nine TB facilities in Donetsk Oblast and two TB facilities in Kyiv City over the period February to March 2004. In addition to the surveys, the researchers held in-depth discussions with many patients to collect qualitative feedback on their opinion of services they had received. The findings from these discussions provide context for the survey data, and are included in the discussion section of the present report.

The research was carried out in TB dispensaries where the highest numbers of TB cases are reported.

<b>Donetsk Oblast</b>	<ul style="list-style-type: none"><li>• Donetsk Oblast TB Dispensary</li><li>• Donetsk City TB Dispensary</li><li>• Rayon TB Dispensaries in Shahtersk, Slaviansk, Mariupol, Makeievka, Enakievo, Dzerzhinsk, Gorlovka.</li></ul>
<b>Kyiv City</b>	<ul style="list-style-type: none"><li>• Kyiv City TB Hospital # 1</li><li>• Kyiv Central TB Dispensary</li></ul>

To obtain permission from the local authorities, the PATH interviewers arranged meetings with health administrators, including Dr. Oleg Karataev, Chief Doctor of Donetsk Oblast TB Dispensary, and Dr. Alexander Klochkov, Chief Doctor of Donetsk City TB dispensary. Dr. Karataev also helped arrange meetings in different TB dispensaries of Donetsk Oblast. In Kyiv, Dr. Leonid Stadnik, Chief Doctor of Kyiv City TB Dispensary # 1, and Natalia Filonenko, Deputy Chief Doctor of the Central City TB Dispensary in Kyiv, provided assistance.

## Findings

### Demographic Information

Basic demographic information was collected from survey participants and coded without name identifier. A total of 312 individuals were interviewed, including 122 (39%) women and 190 (61%) men. The patients interviewed ranged in age from 17 to 76, with an average age of 37. A total of 164 individuals were interviewed at nine different health facilities in Donetsk Oblast and 148 individuals were interviewed at two health facilities in Kyiv City.

### Number of Visits to Facility

The interviewer asked each patient how many visits he or she had made to this medical facility. Forty percent were at the clinic for the first time, and another 40% had made two or three visits to this TB facility. Only 20% had made more than four visits.

### Length of Time in Facility

The interviewer asked how long each patient had spent in the medical facility. The majority of survey respondents (59%) were in the facility for 30-60 minutes. An additional 15% spent up to 90 minutes in the facility that day. Patients in Kyiv spent more time on average in the facility than people in Donetsk. The average time spent in the facility was 39 minutes for people in Donetsk (median 30 minutes) and 64 minutes in Kyiv (median 60 minutes).

### Time to Get to Facility

The majority of respondents (63%) took between 30-60 minutes to get to the facility, however, the transit time was longer in Donetsk Oblast. In Donetsk the average time was 72 minutes (median 60 minutes), and in Kyiv the average time was 41 minutes (median 30).

### Assessment of Providers' Performance

The first ten questions of the survey aimed to measure the respondent's level of satisfaction with aspects of the doctor's performance. A scale of 1 to 4 was presented, and the participant was asked to choose the most appropriate response for each question. An explanation of the scale is provided below.

1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
<b>Very dissatisfied</b>  I am very dissatisfied with the provider's performance.	<b>Not satisfied</b>  I am not satisfied with the provider's performance.	<b>Satisfied</b>  I am satisfied with the provider's performance.	<b>Very satisfied</b>  I am very satisfied with the provider's performance.

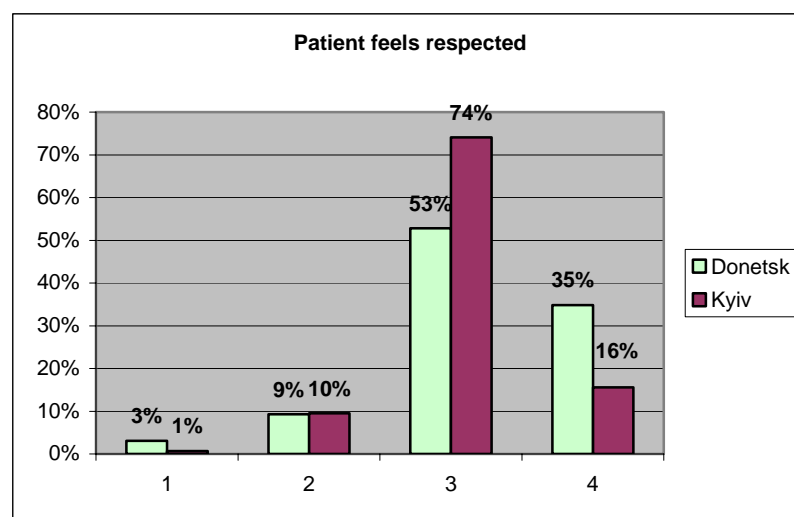
## Interaction with Medical Doctors

The interviewers posed questions related to the patient's assessment of the interaction with the doctor on a scale of 1 to 4. The questions were designed to evaluate the patient's views of the physician's ability to make them feel comfortable, provide support, listen effectively, and supply them with information about TB.

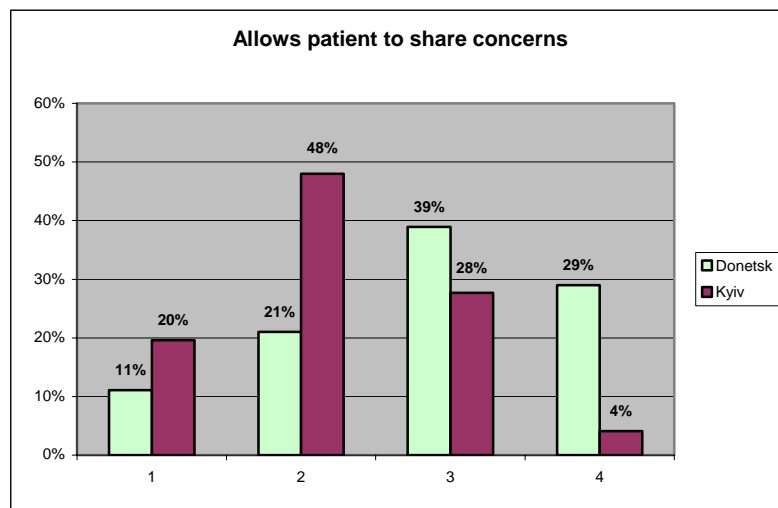
### Providing Emotional Support and Comfort

Patient made to feel comfortable. The majority of respondents in both regions (60%) responded that they were satisfied with the doctor's ability or willingness to make them feel comfortable. More respondents in Donetsk (27%) than in Kyiv (14%) responded that they were very satisfied with this aspect of their visit. Conversely, more respondents in Kyiv (22%) than in Donetsk (12%) stated that they were not satisfied with this aspect. The findings were virtually the same for men and for women.

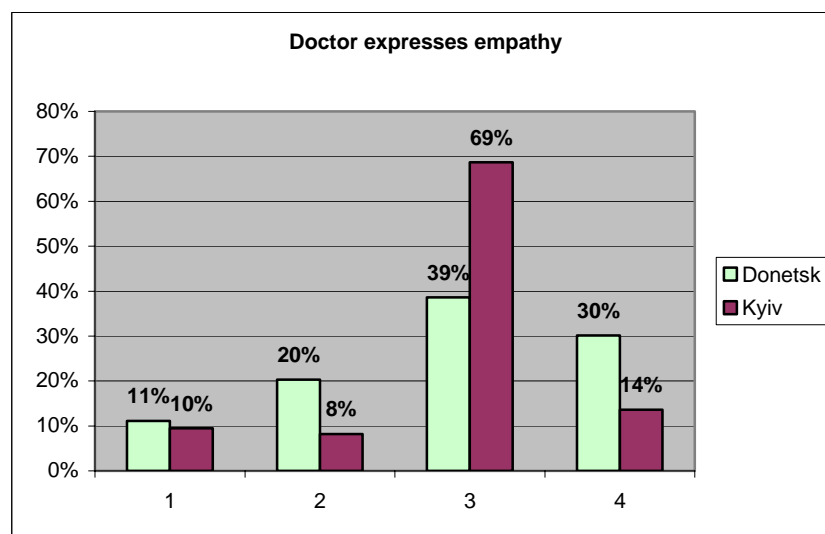
Patient feeling respected. The vast majority of respondents felt satisfied with the doctor's ability or willingness to treat them respectfully. In Donetsk, 35% said that they were very satisfied with this aspect, whereas only 16% responded affirmatively to this question in Kyiv. There was no significant difference between men and women.



Patient sharing his or her concerns. The interviewer asked respondents to evaluate the doctor's ability or willingness to allow them to share concerns and questions about their health. Overall, 34% said they were satisfied, whereas 34% said they were not satisfied. More respondents in Kyiv (69%) stated that they were satisfied, whereas in Donetsk, responses spanned the range, as follows: not satisfied (20%), satisfied (39%) and very satisfied (30%).



**Doctor expressing empathy.** The interviewer asked patients to assess their satisfaction with the doctor's ability or willingness to express empathy. Overall, the majority of respondents (53%) stated they were satisfied. When data is disaggregated by location, more respondents in Kyiv (69%) stated that they were satisfied whereas respondents in Donetsk are spread out more between the responses not satisfied (20%), satisfied (39%) and very satisfied (30%). There were no significant differences between men and women.



## Active Listening Skills

Three survey questions sought to evaluate respondents' opinions on providers' active listening skills, such as their gestures and expressions (nonverbal communication), how much the physician looked the patient in the eyes when talking with him/her, and the doctor's ability to understand their concerns.

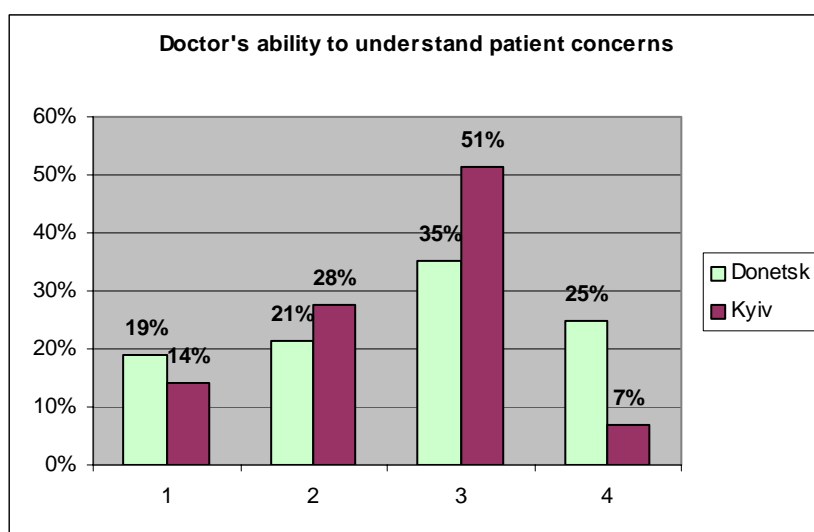
**Gestures and expressions.** When asked to rank their satisfaction with the doctor's gestures and nonverbal expressions, 64% of all participants responded that they were satisfied. An additional 23% stated they were very satisfied and only 14% were not satisfied or very dissatisfied. Significantly more patients in Donetsk (30%) felt very



satisfied with the doctor's performance in this area than in Kyiv (16%). There was no significant difference in responses between men and women.

Eye contact. Respondents were asked whether or not their physician looked them in the eyes when talking with them. A total of 80% responded affirmatively, with only a subtle difference between male and female respondents (85% women and 77% men), and virtually no difference between the two locations.

Understanding of patient concerns. The interviewers asked the patients to assess the doctor's ability or willingness to understand their concerns. Overall, one quarter (25%) stated that they were not satisfied with this aspect, while 43% stated that they were satisfied. Again, the percent of respondents in Donetsk who were very satisfied (25%) surpassed the number in Kyiv with this response (7%). Significantly more respondents in Kyiv (51%), than in Donetsk (35%) answered satisfied. There was virtually no difference between women and men.



## Privacy and confidentiality

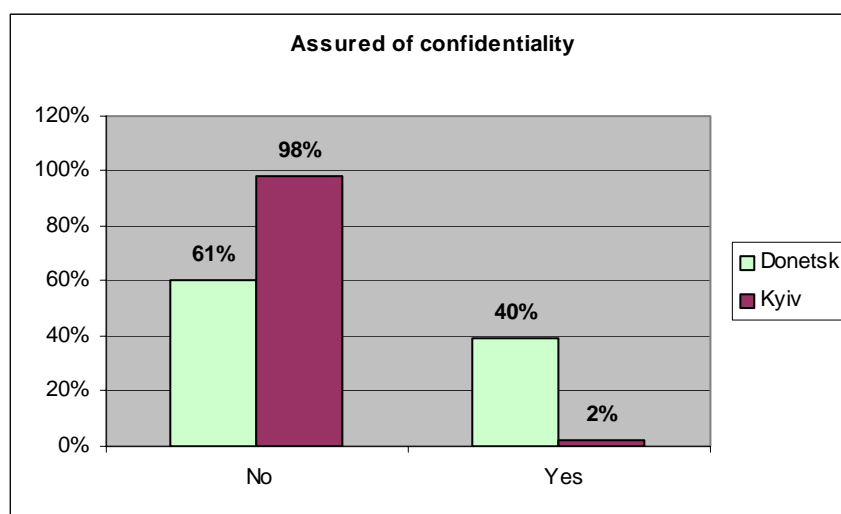
Three survey questions concerned issues of privacy and confidentiality.

How physician dealt with disruptions. Survey respondents were asked whether or not they were satisfied with how the doctor dealt with disruptions during their visit. In both regions, the vast majority of respondents (85%) stated they were *not bothered* by the doctor having interruptions during their visit. There was no significant difference in responses between Donetsk and Kyiv or between women and men.

Privacy. In response to the question of whether or not the doctor's office provided acceptable privacy, the vast majority of participants (77% in Donetsk, 83% in Kyiv) responded affirmatively. When the data were disaggregated by sex, the proportion of women who responded affirmatively (84%) slightly surpassed the percentage of men (77%).

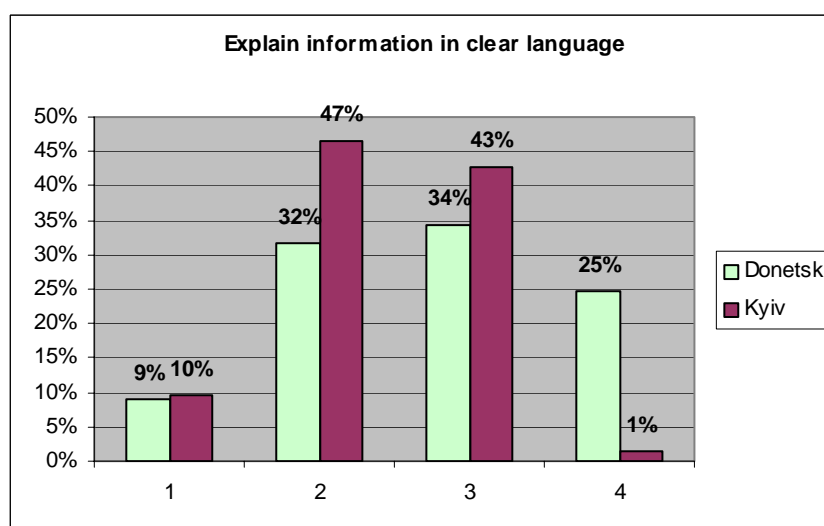
Confidentiality. Respondents were asked whether the doctor assured them that their medical information would be confidential. In sum, 79% said they were not informed of confidentiality, including 61% of respondents in Donetsk, and 98% of respondents in

Kyiv. When disaggregated by sex, more men (27%) than women (13%) felt that confidentiality was assured.

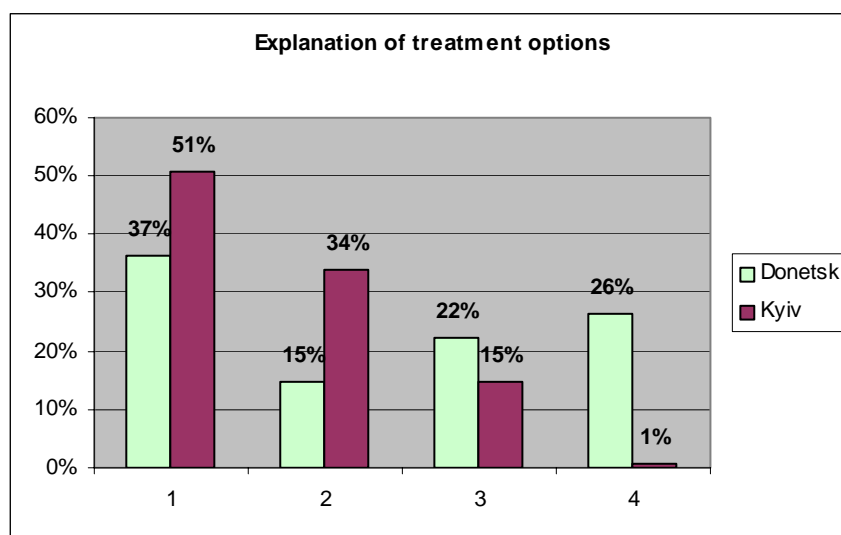


## Information Sharing

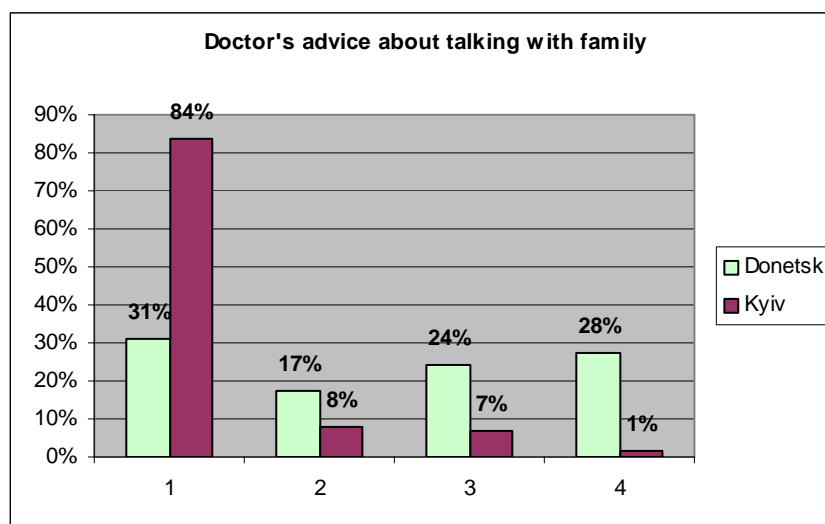
Explaining information in comprehensible language. Interviewers asked survey respondents to evaluate the doctor's ability or willingness to explain information in language that they understood. Overall, 39% about as many respondents said that they were not satisfied, whereas another 38% said that they were satisfied. When disaggregated by location, a significantly higher proportion of patients in Donetsk (25%) than in Kyiv (1%) reported being very satisfied.



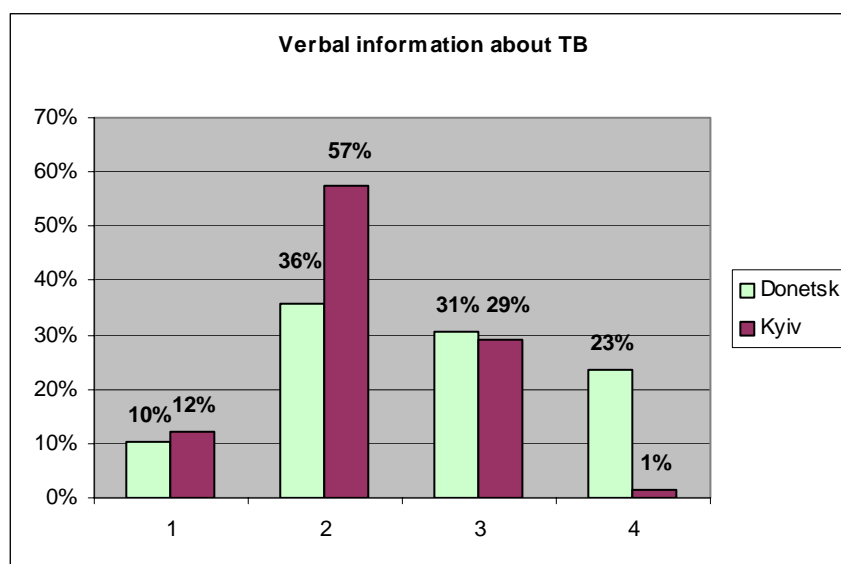
Explanation of treatment options. Interviewers asked survey participants to evaluate the doctor's ability or willingness to explain the treatment options available to them. Overall, the majority of respondents were very dissatisfied (43%) or not satisfied (24%) with this aspect of provider performance. Significantly more patients in Kyiv than in Donetsk were very dissatisfied (51% vs. 37%), whereas more patients in Donetsk than in Kyiv tended to be very satisfied (26% vs. 1%). There was not a significant difference between responses of men and women.



Advice in talking with family. Respondents were asked their opinion of the doctor's ability or willingness to provide them with advice about how to talk with their family about TB. Overall, the vast majority of respondents (57%) stated they were very dissatisfied with this aspect of provider performance. When disaggregated by location, however, there is a marked difference between Kyiv and Donetsk, as shown in the chart below. In Kyiv, a total of 84% said that they were very dissatisfied with this aspect, compared with 31% of patients in Donetsk. Conversely, the proportion of respondents in Donetsk that were very satisfied (28%) far surpassed the same category in Kyiv (1%). There was not a significant difference between responses of men and women.

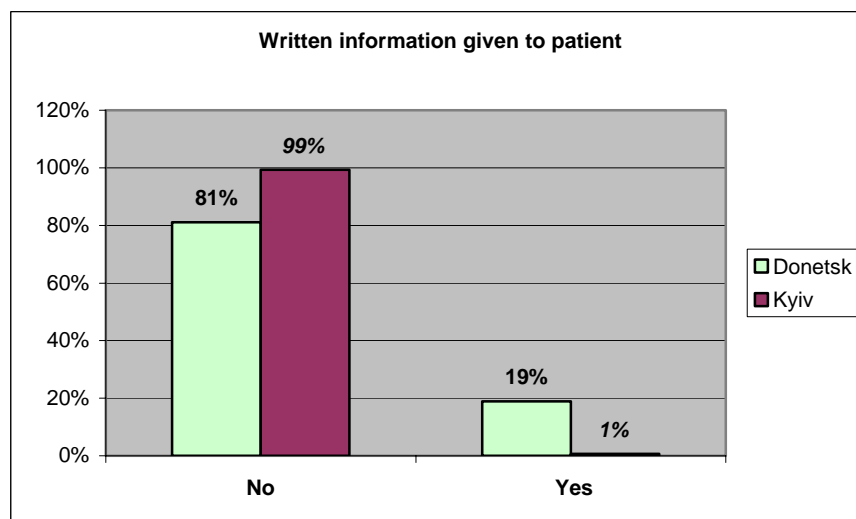


Verbal information about TB. The interviewer asked survey participants about their satisfaction regarding the doctor's presentation of verbal information about TB. Overall, 46% said that they were not satisfied, and 30% said that they were satisfied. The percentage of respondents who responded very satisfied in Donetsk (23%) far surpassed those in Kyiv (1%). More respondents in Kyiv than in Donetsk were not satisfied (57% vs. 36%). There was virtually no difference between women and men.



Patient understanding of next steps. Overall, a total of 72% of patients said that they clearly understood the next steps they needed to take in their treatment. However, that leaves over a quarter (28%) who stated that they do not clearly understand. Only a slight difference was recorded between the two regions, in that 75% of patients in Donetsk said they understood, as compared to 70% of patients in Kyiv. There was virtually no difference between women and men.

Written information. When asked whether the doctor provided them with written information on TB, a total of 90% of patients said no, with only 10% saying yes. There was no difference in responses between women and men, but when data is disaggregated by location, a higher percentage of patients in Donetsk received written materials from the doctors (19%) than did patients in Kyiv (1%).



What materials distributed. Among the survey respondents who said that they received materials, 80% said that they received information about what TB is, that it is curable, and how to prevent it.

## **Interaction with Nurses**

About three of the survey questions related to the patient's interaction with nurses: whether they had any contact with a nurse during their visit, to what degree their presence was helpful or disruptive, and the quality of communication with nurses.

Contact with nurses. When asked whether they had any contact with nurses during their visit, overall, 82% of respondents said that they did, including 77% of respondents in Donetsk, and 83% of respondents in Kyiv.

Impact of nurse's presence. Of the respondents who had contact with nurses, the majority (67%) reported that they felt neutral about his or her presence, and 32% felt that it was helpful. Only 2% reported that the nurse's presence was disruptive. Slightly more women (38%) felt the nurse's presence was helpful than men (27%). For the 35% of respondents who said the nurse was helpful, interviewers asked them in what way he or she was helpful. About 20% said that the nurse answered simple questions they had, such as where to go next in the facility, and another 30% said that the nurse was friendly.

Nurse's communication. The respondents were asked if they were satisfied with the nurse's ability or willingness to communicate with them. In sum, 85% responded affirmatively, while 15% said they were not satisfied. Responses were virtually the same in the two regions, and among women and men.

Nurse's ability to answer questions. When asked whether they were satisfied with the nurse's ability or willingness to answer their questions, 82% of respondents said yes, and 18% said no. Responses were the same among women and men and in the two regions.

Nurse's ability to assist in treatment process. The interviewer asked patients if they were satisfied with the nurse's ability or willingness to assist in the diagnostic or treatment process. In sum, 84% responded affirmatively and 16% said they were not satisfied. Responses were virtually the same when disaggregated by sex and location.

## **Overall Opinion of Service**

Respondents were asked about their overall opinion regarding services they had received. In total, 30% said it was above average, 44% said it was average or good, and 19% said it is below average or poor.

## **Discussion of Findings**

During the interviews with patients and additional meetings with medical providers in Donetsk Oblast and in Kyiv the interviewers made note of a number of issues that provide context for and explain the survey results. This section presents a discussion of these issues based on the results of the interviews and observations made by the interviewers.

## **Working Environment**

A significant issue that influences the work environment in TB care facilities is the general lack of motivation among medical providers to improve their skills or knowledge. Their salaries and benefits are insufficient for the rising cost of living in the country, and due to the lack of the modern equipment in dispensaries, young doctors do not wish to work in the field of TB care. The average age of TB doctors in Ukraine is over 60 years of age. They continue to work beyond the official age of retirement because pension payments are very low.

In addition, many TB providers work with patients with significant social problems, such as released prisoners, homeless individuals, and drug or alcohol-addicted people. In some facilities, relations among the medical providers are tense, including interpersonal conflicts. Many doctors avoid taking responsibility for making decisions themselves; instead, they rely on chief doctors or other colleagues. These factors contribute to a stressful working environment in many TB facilities.

*“We are tired of everything; we are working because there is nothing else we can do. I don’t want to go to work. I go because there is no other option. I need to earn money to live.”*

*“In our country, there is no possibility to improve something. Everything is going from bad to worse.”*

*“We are pressured by multiple demands; work with our patients is ungrateful and difficult.”*

*“Why do we need to pay attention to our patients if no one pays attention to us?”*

## **Provider Communication Skills**

When most TB providers were studying health and medicine, the academic system did not teach a model of client-provider communication that included psychological assistance and counseling. Consequently, most doctors have no counseling or communication skills training. Many of them are not familiar with a service approach that includes counseling the patient, and often their interpersonal communication skills are inadequate.

For the past two years, WHO and PATH have been carrying out a pilot project to implement the WHO-recommended TB control strategy in Donetsk Oblast. The project has trained medical providers, including a module on working with patients, with sections on effective communication skills to help patients adhere to treatment. While this module may help build providers’ skills in counseling, more emphasis is needed so that providers recognize that counseling is an essential part of good care.

This is not to say that some doctors don’t maintain friendly attitudes towards their patients, as many do. The survey findings reflect that the majority of respondents felt that they were treated well by physicians. Comments from patients include the following:

*“Doctors here treat us better than other general medical facilities.”*

*“My doctor is very good, she is very friendly.”*

*“Compared with general medical facilities, we have angels working here.”*

*“Doctor treats me with formality and respect; she is smiling while talking. I’ll do everything for my doctor.”*

Only half of survey respondents (51%) said that they were *satisfied* or *very satisfied* with the doctor’s ability or willingness to allow them to share concerns and questions about their health, while the other half (49%) were either not satisfied or very dissatisfied. During the interviews, feedback suggested that medical providers do not solicit feedback from their patients. Doctors do not clarify with patients whether or not they understand the health information being provided. As a result, patients may misunderstand information about TB or draw incorrect conclusions. For example, one TB patient, when asked about his condition, stated, “I have holes in my lungs. I can be treated but I will always have holes”. Many patients also said during the exit interviews that, “TB is chronic disease. I need to be treated my whole life.” Many TB patients are depressed because they think the disease reduces their status in society. They feel that people treat them poorly and consider them contagious. When asked whether they discussed these problems with their doctor, the vast majority expressed similar sentiments to this patient: “No, the doctor just gave me treatment instructions; everything else is my problem.”

### **Privacy and Confidentiality**

The majority of survey participants (90%) said that the doctor’s office provided sufficient privacy. It should be noted that frequent disruptions by facility personnel or even other patients during an exam are typical in the Ukrainian health system. Nurses are frequently present during a patient visit, but often they don’t talk except to give instructions about where to go next. Neither doctor nor nurses provide guarantees of confidentiality.

A total of 79% of survey participants said that they were not assured that their medical records would be confidential. In many cases, medical files are kept confidential; however, health care providers do not tell their patients this. Most patients are not aware of the requirement of confidentiality in medical settings.

### **Sharing Information**

This survey demonstrated that over half of respondents (57%) were not satisfied or very dissatisfied with the doctor’s presentation of verbal information on TB. In addition, 67% of respondents were not satisfied or very dissatisfied with the doctor’s ability or willingness to explain treatment options. Further, 48% said they were not satisfied or very dissatisfied with the doctor’s explanation of TB in language they could understand. Many doctors are willing to provide information when asked by the patients, but it appears that they generally only provide a basic explanation of TB if the patient doesn’t ask questions. However, when patients were asked if they posed questions, most

people said they didn't. This may be due in part to the significant status differential between patients and physicians.

An example of the consequences of this situation is reflected in the following patient interview:

*"My children had a check-up, but they had no TB. In spite of this, the doctor prescribed prophylaxis, isoniazid, to one of them. I myself was treated with this medicine and know that it is very strong and has some side effects. I don't understand why he issued this prescription and I don't plan to give this medicine to my child. I also don't understand why it is necessary to have such prophylaxis for my child."*

In this situation, the doctor clearly didn't sufficiently explain why he prescribed the drug.

Many patients look for additional information about TB in medical articles and magazines, but they do not always understand the information correctly. For example, one patient considered that TB is incurable because he read an article related to the problems of treating drug-resistant forms of TB. This patient did not know the results of his test on sensitivity to antibiotics, but he thought that the doctor wanted to appease him by saying that TB is curable.

Most doctors don't pay attention to the patient's emotions or help ease their anxiety. They may say, "Don't worry. This disease is curable, everything will be OK," but don't generally offer more detailed information. Medical providers don't take time to explore patients' anxieties. This observation is supported by the results of the survey, which show that 42% of patients were not satisfied or were very dissatisfied with the doctor's ability or willingness to understand their concerns.

For many patients, their anxiety is related to their fear of infecting others. Some are also afraid that their relatives or friends may associate their disease with a social behavior. Others believe they have contracted TB due to depression caused by personal problems. Some women expressed fear that their husbands will abandon them, and that they don't know how to improve the situation. Several women explained that their husbands deserted the family as soon as they were informed about TB. Women normally don't discuss these problems with medical providers and doctors don't clarify the source of the patient's emotional problems. Some medical providers consider emotional instability as one of the symptoms of TB.

With rare exception, doctors do not discuss with patients ways that they can or should inform close relatives about TB. Some doctors meet the relatives themselves to explain the need to screen or examine those who are in close contact or live in the same household with the patient. Doctors may or may not explain the patient's daily regimen and the related hygienic measures. As a result, relatives do not always understand whether or not the patient has active TB or whether they are at risk of being infected.

The need for better forms of verbal and written information about TB for patients and their families is apparent. For instance, this 26-year-old patient with inactive TB stated,

*"I myself told my relatives about having TB. I made them go through an examination. They turned out to be healthy, but they constantly fear they can be*



*infected by me. I have fears that I can infect them. As a result, I try to limit my communication with them and try to stay out of our home."*

When the interviewer added that only someone with active TB could infect others, the patient responded, *"Is it really so? I didn't know that! Everything is clear now!"*

## **Inefficiencies in Health System**

According to new regulations, patients need to get screened (by smear microscopy, chest X-ray and blood/urine tests) at a general health care facility and then present these results at a TB dispensary. Many doctors, however, refer patients to the TB dispensary without performing the necessary tests. Dispensary staff send patients back to the general facility where they have to pay for x-rays. In this way, the screening, diagnostic, and treatment process is extended for longer periods or even interrupted if a patient gets frustrated with the inefficiencies and doesn't return for complete diagnosis and treatment.

A 22-year-old female patient in Kyiv shared,

*"I was sent from my district physician to the TB dispensary and then back to the district physician for examination. At the polyclinic, they charged UAH20 for x-rays. I had no money and returned home. Nurse came from polyclinic the next day and told me that they have free film for me. I was X-rayed and came to this dispensary. I have TB."*

## **Vulnerable Populations**

TB is a problem that significantly affects socially marginalized populations, particularly homeless people, alcohol or drug abusers, and current or former prisoners. The common lack of health-seeking and self-protective behaviors among these populations complicates the dynamics of the TB epidemic in Ukraine. The TB dispensary provides meals and accommodation. During the winter season, when some people have no place to go after being discharged, they perpetuate their illness by continuing to consume alcohol or drugs, or violate their daily TB treatment regimen, so that they can be re-admitted to the facility. These patients put their health at risk and also overload TB facilities. Others leave town and interrupt their treatment regimen, or do not have a fixed address so that they can be assigned to a local facility. Because of these challenges, many doctors believe that these patients require mandatory treatment through institutional confinement. They see these individuals as threats to public health and do not feel that sufficient resources are available to resolve the situation through educational activities.

## **Conclusion and Recommendations**

The survey results provide a thorough baseline documentation of TB patients' opinions about provider performance. The same exit survey will be administered near the end of the project to measure the potential effect of project interventions. Based on the survey data and on the findings and observations of the interviewers during discussions with patients and TB medical providers, PATH makes the following recommendations:

- Develop a three- or four-day training on interpersonal communication and counseling for doctors. Identify the areas that WHO trainings have already covered and use these workshops as a base for additional skills development of health care providers.
- IPC/C training should include activities that allow participants to develop their communication skills. Before, during, and after the training, facilitators should evaluate the level of knowledge and counseling skills of doctors (active listening, sharing medical information in simple language, assessing patients' needs, expressing sympathy for patients, helping patients communicate with family members).
- The training should create motivation for comprehensive counseling of TB patients. This may entail exploring providers' personal and professional attitudes, addressing stigma and discrimination, and problem-resolution approaches to improve the workplace environment and on-the-job motivation.
- Training should include extensive discussion and exploration of all aspects of privacy and confidentiality, including definitions, justifications, and consequences of breach of confidentiality or non-respect of privacy. This could be done through case studies.
- Training should address issues related to work-related stress and burnout, as well as interpersonal relationships between health facility colleagues and with patients. Participants should become familiar with and/or practice techniques for dealing with stress and burnout.
- Finally, special attention on providing information and support to family members is needed. This issue should be addressed in training of doctors and potentially in printed materials the project develops as well.

## IMPROVING TUBERCULOSIS CASE DETECTION AND MANAGEMENT IN UKRAINE

**Exit survey for outpatients***Baseline data collection*

Survey information	
Interviewer:	Questionnaire ID #:
Facility name/code:	Date of survey:

**Instructions for patient:**

- A) Please fill in the following information. This information is being collected to identify how services can be improved in this facility. Your name is not collected, and all information you provide is strictly confidential.

Patient information	
1. Age of patient:	
2. Sex of patient: <input type="checkbox"/> Female <input type="checkbox"/> Male	
3. How many visits have you made to this facility?	<input type="checkbox"/> first time <input type="checkbox"/> 2 or 3 times <input type="checkbox"/> 4-5 times <input type="checkbox"/> 6 times or more
4. How long were you in the facility this time? _____ hours	
5. How long did it take for you to get to this facility?	

- B) Now read each question below and choose the most appropriate answer according to your honest personal opinion about your medical visit today.
- C) There is a scale of four possible answers for each question. The interviewer will further explain this scale to you on a separate paper. For each question, mark your answer by writing 'X' in the box you choose, like this: ☒. In this scale, 4 represents very satisfied, 3 represents satisfied, 2 represents not satisfied, and 1 represents very dissatisfied.

**D) How satisfied were you with the following aspects of the doctor's performance?**

		1	2	3	4
6.	The doctor's ability or willingness to make you feel comfortable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	The doctor's ability or willingness to treat you respectfully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	The doctor's ability or willingness to allow you to share your concerns and questions regarding your health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	The doctor's ability or willingness to explain information in clear language.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	The doctor's ability or willingness to explain the treatment options available to you.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	The doctor's ability or willingness to provide you with advice about how to talk with your family about TB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	The doctor's ability or willingness to understand your concerns/anxiety about TB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	The doctor's presentation of <i>verbal</i> information about TB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	The doctor's gestures and facial expressions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	The doctor's ability or willingness to express empathy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# **Baseline Survey of Knowledge, Attitudes, and Practices Related to TB in Kyiv City and Donetsk Oblast**

## **Summary of Findings**

*For the project:*

**Support to Ukraine in Implementing Its National TB Program**



**April 2004**

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### **Attachments:**

Attachment A: KAP Survey

## Study Design

In February 2004, Program for Appropriate Technology in Health (PATH) hired Socis Analytical Center of Kyiv, Ukraine to conduct research on public opinions related to tuberculosis (TB) as part of the project "Support to Ukraine in Implementing Its National TB Program." The goal of the research was to analyze knowledge, attitudes, and practices related to TB among the general public and specific social groups in order to inform the development of a future TB educational campaign.

Socis conducted a representative, randomized sociological survey of adults aged 18 and above in Kyiv City (n=600) and Donetsk Oblast (n=1,000). Maximum errors do not exceed 4.1% and 3.2%, respectively. The following target groups were surveyed:

- Open market vendors in Kyiv City (n=60);
- Clients of charitable food banks in the cities of Kyiv (n=50) and Donetsk (n=50); and
- Recently released prisoners in Donetsk City (n=50).

Socis also conducted focus group discussions (FGDs) with people living with HIV/AIDS in Kyiv City (three groups) and Donetsk Oblast (one group in Mariupol and one group in Makiyivka). The results of these FGDs are provided in a separate report.

## Findings

### Knowledge About TB

Most respondents in the general public (90%) knew that TB is transmitted through the air. Knowledge of airborne transmission among open market vendors (78%), food bank clients (81%), and released prisoners (86%) was also good. The perception of infection from common objects was slightly exaggerated. The majority of all respondents (67%-78%) felt that sharing dishes with an infected person could transmit TB, and between 16%-42% said that touching items in public places (doors, walls, etc.) could transmit TB. The majority of respondents could name the two primary symptoms of TB: long-lasting cough (77%-85%), and fever (43%-82%). Roughly two-thirds of the general public surveyed (60%) knew that TB is curable and only 55% of vendors and food bank clients and 70% of prisoners knew that TB is curable. The majority of respondents, 71% of the general public, stated that anybody can be infected with TB, including 77% of vendors, 62% of food bank clients, and 50% of former prisoners. An additional 43% of the general public and 64% of former prisoners felt that prisoners in particular could be infected. Between 32%-59% of all respondents stated that poor people and homeless people could be infected.

### Personal Experience and Stigma

Ninety-two percent of former prisoners surveyed said that they had known someone with TB. In contrast, only 44% of the general public, 35% of vendors, and 53% of food bank clients had known someone with TB. Respondents were divided about how they feel about people who have TB. Most prisoners (68%) said that they feel compassion and desire to be of help as did 50% of vendors, 35% of the general public, and 30% of food bank clients. An additional 42% of the general public and 55% of food bank clients stated that they feel compassion but tend to stay away from people with TB.

## **Perception of TB as Societal Problem**

A total of 66% of the general public respondents stated that TB is a serious problem in their region. Vendors (70%), food bank clients (77%), and former prisoners (72%) also perceive TB as a serious societal problem. An additional 12%-20% of all respondents feel that TB is a somewhat serious problem, whereas no respondent said that TB is not a serious problem at all.

## **Perception of Risk of Being Infected with TB**

A total of 60% of vendors, 50% of former prisoners, and 37% of the general public felt that they were at considerable risk of being infected with TB. Fifty-two percent of food bank clients and 42% of the general public felt they were at little risk of being infected.

## **Cost of TB Health Services**

Respondents were asked how expensive they think TB diagnosis and treatment are in Ukraine. TB diagnosis and treatment is free in TB dispensaries in Ukraine, a fact that is not well known. Among the general public, 25% of respondents said that TB diagnosis is too expensive for them to afford, and 35% said that treatment is too expensive. The survey found that respondents with lower income are more likely to delay seeking qualified care.

## **Health-seeking Behavior**

The vast majority of respondents (74%-95%) stated that they would go to the doctor if they thought they had symptoms of TB. The number of former prisoners who said they would pursue other self-treatment options (herbs, etc.) was significant, at 22%. Another 26% of the general public and 28% of food bank clients responded that they would go to the doctor only after TB symptoms had persisted for three to four weeks. For those general public respondents who stated they would not go to the doctor at all (n=52), 40% explained that cost was the primary barrier and another 40% said they don't trust or don't like the attitudes of health workers.

## **Sources of Information About TB**

Nearly all of the respondents (97%) said that they had seen articles or reports on TB. Television is the most common source of information for the general public (50%), vendors (67%), and food bank clients (37%). Newspaper and magazines are also popular sources for the general public (37%), vendors (45%), and food bank clients (17%). Radio was cited by 52% of vendors and family/friends were cited by 46% of prisoners. In addition, medical workers are also an important source of TB information (32-40%) for all respondents.

## **Discussion**

As many individuals surveyed have only basic information about TB, the research results demonstrate the urgency and importance of launching an educational campaign on the TB epidemic in Ukraine in the two regions. When designing an educational campaign on TB it is necessary to take into account the most common sources of information for the target groups as well as their trust in those sources.

The media (TV, radio, and the printed media) were particularly important to the vendors and the general public. Vendors working in outdoor markets may pay regular attention to outdoor



advertising more frequently than other groups. Conversely, prisoners have limited access to TV, radio, and printed press, and thus information targeting this group should be channeled through prison facility medical workers or designed to be shared via friends and family. Clients of charitable food banks are the respondent group least exposed to TB information. They are often homeless or unemployed. One out of every three food bank clients surveyed had not seen or heard information on TB for a long time or not at all.

When planning a TB informational campaign, program managers need to recognize that the common sources of information differ in their credibility ranking. In health-related matters, the general public trusts advice from specialists (49%) and specialized medical literature (34%) more than other sources. In light of this, TV spots featuring doctors or scientists can reach an extensive audience and capture public attention. Furthermore, radio broadcasts and local periodicals have a considerable potential for providing TB-related information to a broad population, especially in rural areas. It would be important, however, to conduct additional research regarding the particular FM radio stations listened to by the various target audience groups.

Special attention should be paid to senior citizens as they have the lowest level of knowledge of free TB services. To reach this population, it is recommended that leaflets, booklets, and posters be made available at low-income social assistance centers, pharmacies, housing bureaus, and other places frequented by senior citizens.

Designing an educational campaign for the population groups most vulnerable to TB infection is an urgent challenge. As social networks among these groups are of paramount importance, a peer education approach may be most effective. Former prisoners, for example, are more influenced than others by information from their social environment as well as from doctors. The survey suggests that the majority of former prisoners have directly encountered TB while in the penal system. More than one-third of them said that they had received information on TB while serving in prison. Peer-to-peer educational methods may be especially appropriate among prisoners, released prisoners, homeless people, and clients of social services such as charitable food banks.

When designing an educational campaign and support materials, the level of distrust of many people of the medical system is necessary to take into account. In the survey, many people question medical practitioners' qualifications, or expressed complaints about ethical issues. Many Ukrainians have found the general condition of medical institutions to be highly unsatisfactory. These factors increase attempts at self-treatment, and as a result, people infected with TB may resort to home remedies or reject the idea of seeking medical care altogether. The survey also found that many people who lack legal documents may delay seeking care because the health system is not accessible to them without a passport or proof of residence. This is particularly true of free medical services such as TB diagnosis and treatment. Outreach education, referral, counseling, and medical advice could be organized at food banks or other social services to reach the poor, homeless, drug or alcohol users, and commercial sex workers.

The survey found that most people's understanding of TB and the severity of the epidemic is not strong enough to motivate them to seek treatment immediately. Educational messages should emphasize the importance of seeking care early when symptoms are first recognized. The survey suggests that the factors that most strongly influence a person's perception of risk of being infected with TB are higher mobility and knowing someone with TB.

Questionnaire ID #: \_\_\_\_\_

Date of survey: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Facility name: \_\_\_\_\_

\_\_\_\_\_

## IMPROVING TUBERCULOSIS CASE DETECTION AND MANAGEMENT IN UKRAINE

### KAP SURVEY

#### Baseline data collection

Dear Respondent:

We wish to learn about your knowledge, attitudes, and practices regarding tuberculosis (TB). We hope to understand your needs and the best way to bring information to you, as well as barriers to seeking medical care. The information you provide will be used to improve TB diagnostics and treatment in several regions of Ukraine.

Your answers will not be released to anyone and will remain anonymous. Your name will not be written on the questionnaire or be kept in any other records. Thank you for your assistance.

1. How old are you?

- ☐ Under 30
- ☐ 30-59
- ☐ Over 60

2. What is your gender?

- ☐ Male
- ☐ Female

3. What is your education?

- ☐ Elementary
- ☐ High school
- ☐ College
- ☐ Higher education

4. Are you working?

- ☐ Yes

- ☐ No
5. What is your monthly income?
- ☐ Under UAH200  
☐ UAH200-500  
☐ Over UAH500  
☐ Other (*please explain*)
6. Have you ever heard of tuberculosis?
- ☐ Yes  
☐ No
7. Do think TB is a serious problem in your region? (*Please check one*)
- ☐ Very serious  
☐ Somewhat serious  
☐ Not very serious
8. What are the symptoms of TB? (*Please check all that apply*)
- ☐ Rash  
☐ Cough that lasts longer than 3 weeks  
☐ Severe headache  
☐ Nausea  
☐ Weight loss  
☐ Fever without clear cause that lasts more than 7 days  
☐ Chest pain  
☐ Shortness of breath  
☐ Ongoing fatigue  
☐ Don't know  
☐ Other
9. How is TB transmitted? (*Please check all that apply*)
- ☐ Through handshakes  
☐ Through the air when a person with TB coughs or sneezes  
☐ Sharing dishes  
☐ Through touching items in public places (doorknobs, handles in transportation, etc.)  
☐ Don't know  
☐ Other (*please explain*)

10. In your opinion, who can be infected with TB? (*Please check all that apply*)

- ☐ Anybody
- ☐ Only poor people
- ☐ Only homeless people
- ☐ Only alcoholics
- ☐ Only drug users
- ☐ Only people living with HIV/AIDS
- ☐ Only people who have been in prison
- ☐ Other (*please explain*)

11. Do you think you can get TB? (*Please explain*)

- ☐ Yes (*because...*)
- ☐ No (*because...*)

12. Can TB be cured?

- ☐ Yes
- ☐ No

13. What would you--do if you thought you had symptoms of TB? (*check all that apply*)

- ☐ Go to the doctor
- ☐ Go to the pharmacy
- ☐ Pursue other self-treatment options (herbs, etc)
- ☐ Other \_\_\_\_\_

14. At what point would you go to the doctor? (*Please check one*)

- ☐ When treatment on my own doesn't work
- ☐ When symptoms that look like TB signs last for 3-4 weeks
- ☐ As soon as I realize that my symptoms might be related to TB
- ☐ I would not go to the doctor (go to 14a)

14.a. If you would not go to the doctor, what is the reason? (*Please check all that apply*)

- ☐ Not sure where to go
- ☐ Cost
- ☐ Difficulties with transportation/distance to clinic
- ☐ Don't trust health workers
- ☐ Don't like attitude of medical workers
- ☐ Can't leave work (overlapping work hours with medical facility working hours)
- ☐ Don't want to find out that something is really wrong
- ☐ Other (*please explain*)

15. How expensive do you think TB diagnosis and treatment is in Ukraine?  
(Please check **one**)

- ☐ Costs a lot of money
- ☐ Is reasonably priced
- ☐ Is free of charge

16. Do you know people who have/had tuberculosis?

- ☐ Yes
- ☐ No

17. What do you feel about people who have TB? (Please check **one**)

- ☐ Compassion and desire to be of help
- ☐ Compassion but I tend to stay away from these people
- ☐ It is the problem of those individuals and can never happen to me
- ☐ Fear (fear of being infected)
- ☐ No particular feeling
- ☐ Other (please explain) \_\_\_\_\_

18. Is information on TB available to you?

- ☐ Yes
- ☐ No

19. What are the sources of information that can most effectively reach people with information on TB? Please choose the three most effective sources.

- ☐ Newspapers and magazines
- ☐ Radio
- ☐ TV
- ☐ Billboards
- ☐ Brochures, posters, and other printed materials
- ☐ Medical workers
- ☐ Family, friends, neighbors, and colleagues

20. What worries you the most when you think about TB?

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**Thank you very much for helping with our survey.**

# **Survey of TB Policy- and Decision-makers in Donetsk and Kyiv**

## **Baseline Research Report**

*For the project:*

**Support to Ukraine in Implementing Its National TB Program**



**March 2004**

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## **Attachments**

Attachment A: TB Policymakers Survey Questionnaire

## **I. Acknowledgements**

PATH policy specialist, Dr. Anatoliy Tsarenko, designed the survey and conducted the interviews. He was assisted by PATH staff Alexey Bogdanov in the data compilation and analysis phase. PATH staff Siri Wood and Svitlana Okromeshko participated in the data analysis and authored this report.

PATH would like to gratefully acknowledge the assistance of Dr. Kestutis Miskinis of WHO TB Office in Ukraine, Dr. Oleg Karatayev, Chief Doctor of Donetsk Oblast TB Hospital; and Dr. Alexander Klochkov, Chief Doctor of Donetsk City TB dispensary; Dr. Leonid Turchenko, Chief Doctor of Kyiv City Central TB Dispensary; and Dr. Leonid Stadnik, Chief Doctor of Kyiv City TB Dispensary #1.

## **II. Executive Summary**

The following research was conducted for the project *“Support to Ukraine in Implementing Its National TB Program,”* managed by Program for Appropriate Technology in Health (PATH) in collaboration with the World Health Organization (WHO) and the Royal Netherlands TB Association (KNCV). The project works to improve tuberculosis (TB) case detection and management in Kyiv City and Donetsk Oblast. The three-year, USAID-funded project implements the WHO-recommended TB control strategy (formerly called DOTS), thereby contributing to a reduction in public health risk of TB and a reduction in the rate of transmission in the project areas.

PATH project staff designed a survey among 47 TB policy- and decision-makers in Donetsk Oblast and Kyiv City. Participants included regional politicians, health authorities, chief doctors of TB hospitals and primary health care facilities, and TB doctors. The survey contained questions about regulatory and legal documents that may need improvement, whether existing laws are sufficient for integrated management of HIV/TB co-infected patients, perceived barriers to preventing further spread of the TB epidemic in Ukraine, and opinions on the WHO-recommended strategy on TB control in Ukraine (see questionnaire in Attachment A).

The purpose of the survey was to collect baseline information for use in developing the project's Detailed Implementation Plan and to identify the most appropriate proposed activities. The results of the survey helped the project team understand current problems with laws on TB control in Ukraine, to clarify activities needed to improve the effectiveness and safety of TB Health Care System, and to coordinate the common efforts of Ukrainian and international partners. A summary of additional baseline data collected, as well as proposed policy and advocacy activities, is provided in the project's Detailed Implementation Plan.



## Findings

- When asked if they are satisfied with current laws regarding TB control in Ukraine, only 10% of survey respondents answered affirmatively. Ninety percent responded that they are either not satisfied or not completely satisfied.
- Forty-five percent of participants responded that they believe it is possible to implement the WHO-recommended strategy on TB control in Ukraine, and another 40% said that it is possible with changes. Only six percent stated that they do not think it's possible, and another nine percent said they were not sure.
- The survey asked respondents what the positive and negative aspects are of the WHO-recommended strategy on TB control. The respondents most often listed the following positive aspects: full supply of TB drugs (30%), standardized treatment scheme (24%), and high economical effectiveness of treatment (19%). Regarding negative aspects, 19% stated that treatment results are determined based only on presence or absence of bacillus elimination, which, in their opinion, is not an adequate measure of care.
- Respondents were asked to list the changes needed for the WHO-recommended strategy on TB control to be successfully implemented in Ukraine. Few respondents (15%) felt that the WHO-recommended strategy should be integrated into the National TB Control Program. In addition, 13% believed that it is important to increase government funding for TB control at all levels. Similarly, 13% believed that it is necessary to motivate medical personnel economically, so as to attract younger doctors to the field of TB care.
- The survey questionnaire asked whether participants think that existing laws are sufficient for the integrated management of HIV-TB co-infected patients. Only 16% of the respondents felt that existing laws are sufficient, whereas 64% stated that the laws are insufficient and 20% were not sure.
- About one-third (31%) of respondents were interested in participating in a working group to develop proposals to the Verkhovna Rada (Parliament), the Cabinet of Ministers, and the Ministry of Health (MOH) to improve regulatory legislation on TB control. Sixty-nine percent said they would not be interested.
- The survey asked respondents which regulatory and legal documents they felt needed further improvement to conform to international standards and improve TB control. A summary of responses indicating which documents need improvement is presented in the table that follows:

<b>Regulatory or Legal Document</b>	<b>% Responding “Needs Improvement”</b>
1. Law of Ukraine «On TB Control» №2586-III of 05.07.2001	89%
2. President's Decree (Ukase) «Urgent Actions as to TB Control» №679/2000 of 05.11.2000	80%
3. National Program on TB Control for 2002 – 2005	80%
4. Regulation of the Cabinet of Ministers of Ukraine (CMU) «Establishing Interagency Commission on TB Control» №1480	53%

Regulatory or Legal Document	% Responding “Needs Improvement”
of 09.28.2000	
5. Regulation of CMU «Nutrition Quota for TB Patients and People Infected with TB Mycobacterium» №1752 of 12.27.2001	52%
6. MOH Order «Actions Regarding Implementation Performance of Parliament Hearings' Recommendations, namely: «Actions Required to Abolish the TB Epidemic in Ukraine» №407 of 09.02.2003	57%
7. MOH Order «Authorization of Guidelines Regarding Medical Care of TB Patients and Patients with Non-specific Lung Diseases» №499 of 10.28.2003	44%
8. MOH Order «Authorization of Guidelines Regarding Bacteriological Diagnostics of TB Infection» №45 of 02.06.2002	26%
9. Order of MOH and State Committee for Statistics of Ukraine «Authorization of Primary Recording Form №089/o «Notification on Newly-detected Active TB Patient or TB Relapse Patient Diagnosis and Guidelines How to Fill It Out» №112/139 of 03.25.2002	21%
10. MOH Order «Establishing Clinic and Diagnostic Laboratory at the Reference Center of MOH for TB Microbiological Diagnostics» №566 of 05.12.2003	13%

### III. Introduction

With funding from USAID, PATH is implementing a three-year project aimed at reducing the public health risk of tuberculosis (TB) in Kyiv City and Donetsk Oblast. One of the project's objectives is to strengthen the capacity of Ukraine to expand the WHO-recommended TB control strategy. Essential to this effort will be advocacy for political support for the WHO strategy at all levels of government, including facilitating the development of an appropriate legislative base that supports improved TB control approaches. Positive changes at the legislative level will, in turn, facilitate expansion of the WHO strategy to additional oblasts.

Both TB incidence and mortality have risen sharply in Ukraine in the last ten years. The increase in mortality rates is likely due to late detection, multi-drug resistance, and, until recently, shortages of TB drugs. Further, the burgeoning HIV epidemic will likely drive TB incidence upwards in the coming years. As in all former Soviet countries, conventional TB case detection in Ukraine relies on mass screening using miniature chest X-ray (fluorography), a highly inefficient approach. In addition, 90 to 95 percent of new TB patients are hospitalized for six to eight months. The WHO-advocated TB control strategy has met resistance in Ukraine in the past, but receptivity to the approach is improving. Implementation of DOTS potentially could break down some of the barriers to TB elimination in Ukraine, including reducing the cost of treatment. Advocacy and education among decision-makers in the government and the medical

community will be essential to successful national adoption of DOTS in Ukraine. In the context of this project, PATH will work closely with WHO, KNCV, USAID, and other agencies to advocate for legislative changes that will facilitate implementation of WHO recommendations and bring TB policies and treatment protocols in line with international standards.

During the initial phase of the project, staff reviewed and analyzed the following Ukrainian legislative and policy documents: laws on TB, President's decrees, administrative regulations of the Cabinet of Ministers, orders of the MOH, and regional health administrations related to TB epidemic control.

#### **IV. Survey Objectives**

PATH conducted this survey with 47 key TB policymakers and decision-makers in Kyiv City and Donetsk Oblast to collect information on their knowledge of current TB legislative documents, to learn what legislative changes are needed to facilitate implementation of the WHO strategy in Ukraine, and to understand their attitudes toward the WHO approach. This information was used to develop the project's Detailed Implementation Plan and will guide strategic plans for improving the regulatory legislation related to TB control in Ukraine.

#### **V. Research Methodology**

The research explored the knowledge, satisfaction, and attitudes of two main groups:

1. Chief specialists of the National/Regional Authorities (the Parliament, the Cabinet of Ministers of Ukraine, oblast/city/rayon state administrations).
2. Chief specialists of Health Facilities.

The policymakers survey instrument included 10 questions in a checklist format and several open-ended questions. It was conducted in February and March of 2004. Each questionnaire was marked with an ID number, and thus names were not recorded. Data were entered and analyzed in EPI Info with charts produced in Excel.

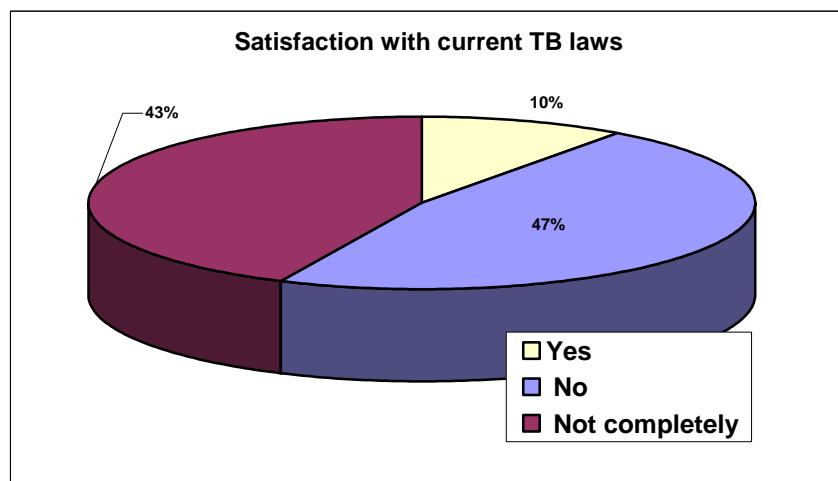
#### **VI. Findings**

##### **Participant Information**

The survey was completed by seven chief specialists of the National/Regional Authorities (15% of respondents) and forty chief specialists of health facilities (85% of respondents). The first category, chief specialists, includes members of the Parliament, the Cabinet of Ministers of Ukraine, and oblast/city/rayon state administrations.

## Knowledge and Satisfaction with Current Laws

When asked if they are satisfied with current laws regarding TB control in Ukraine, only 10% responded affirmatively. Ninety percent responded that they are either not satisfied or not completely satisfied.

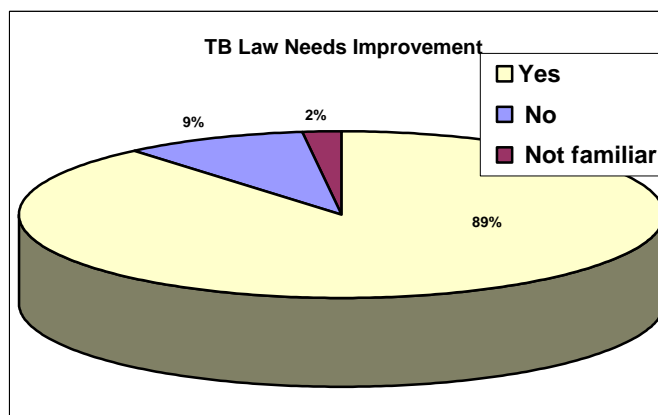


## Regulatory and Legal Documents Needing Improvement

The survey asked respondents which regulatory and legal documents needed further improvement to conform to international requirements, promote more effective control of TB, address gaps, and eliminate existing contradictions and discrepancies.

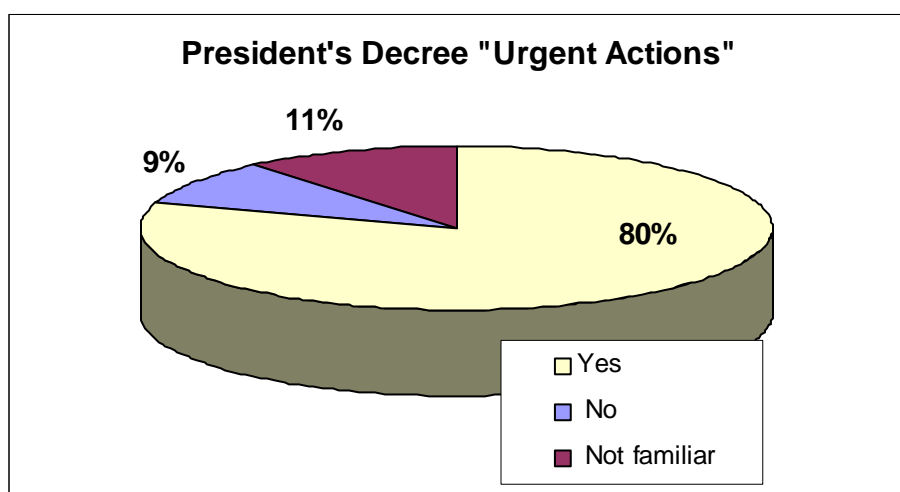
### Ukrainian Law “On TB Control” №2586-III of 07.05.2001

Regarding the Ukrainian Law, “On TB Control” №2586-III of 07.05.2001, the majority of respondents (89%) said that this document needs improvement. Only 9% responded that it does not need improvement, and 2% were not familiar with the document.



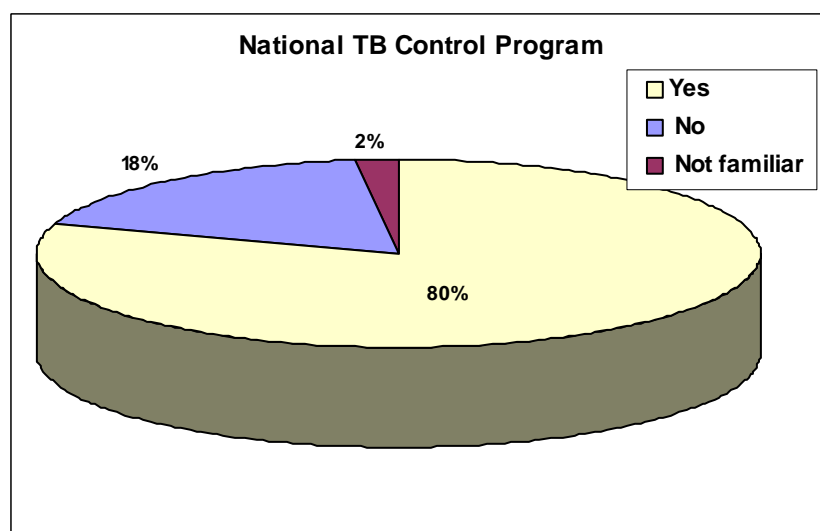
### President's Decree “Urgent Actions for TB Control” №679/2000 of 05.11.2000

Concerning the Ukrainian President's Decree, “Urgent Actions as to TB Control” №679/2000 of 05.11.2000, the vast majority of respondents stated that the decree needs improvement. Only 9% said that the decree does not need improvement, and 11% were not familiar with the decree.



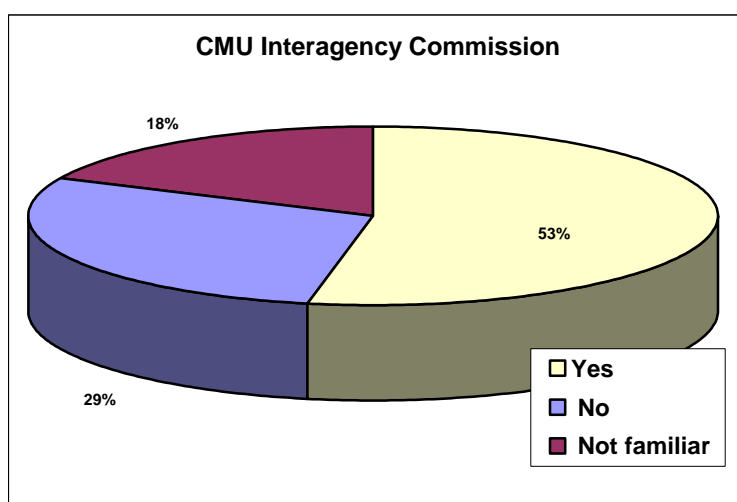
### National Program on TB Control for 2002 – 2005

The questionnaire asked respondents if, in their opinion, the National Program on TB Control for 2002 – 2005, needs improvement. Eighty percent responded affirmatively, and 18% said that it did not need improvement. Only 2% were not familiar with the National Program document.



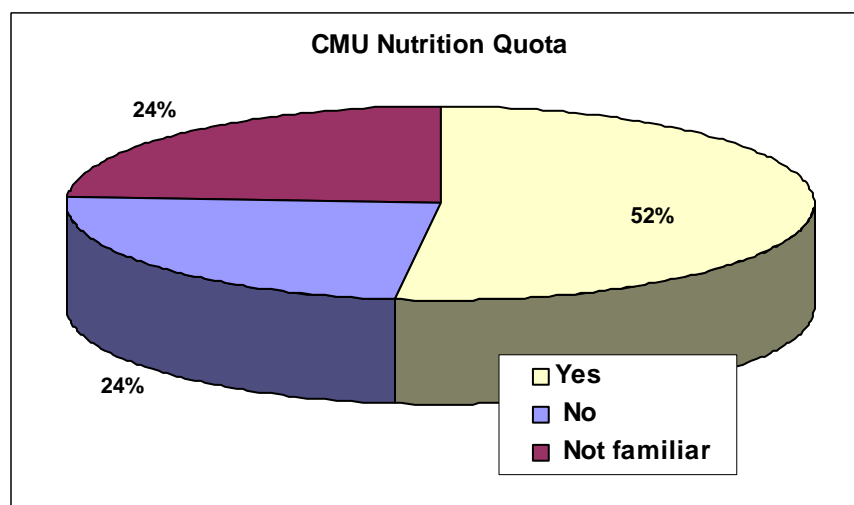
### CMU Regulation “Establishing Interagency Commission on TB Control,” №1480 of 09.28.2000

Regarding the Regulation of the Cabinet of Ministers of Ukraine (CMU) entitled, “Establishing Interagency Commission on TB Control,” №1480 of 09.28.2000, over half of respondents (53%) affirmed that the document needs improvement. Twenty-nine percent were satisfied with it as it is, and 18% were not familiar with it.



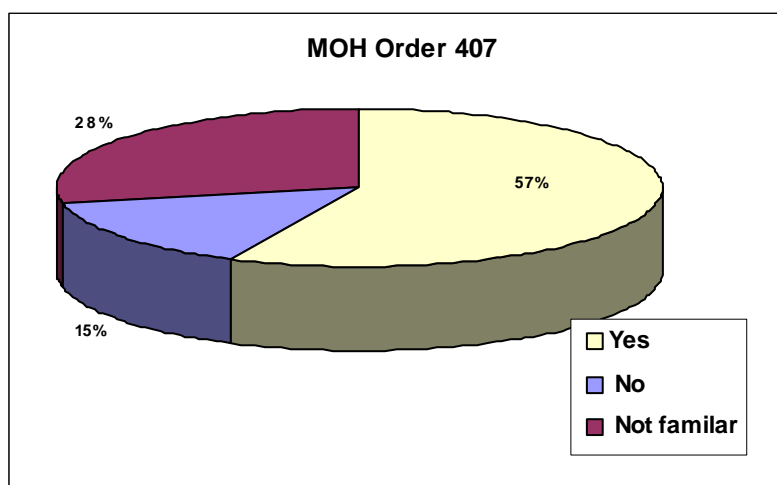
### CMU Regulation Entitled “Nutrition Quota for TB Patients and People Infected with TB Mycobacterium,” №1752 of 12.27.2001

Regarding the CMU Regulation entitled, “Nutrition Quota for TB Patients and People Infected with TB Mycobacterium,” №1752 of 12.27.2001, just over half (52%) of respondents stated that the document needs improvement. Twenty-four percent felt that the regulation needs no improvement, and 24% were not familiar with the regulation.



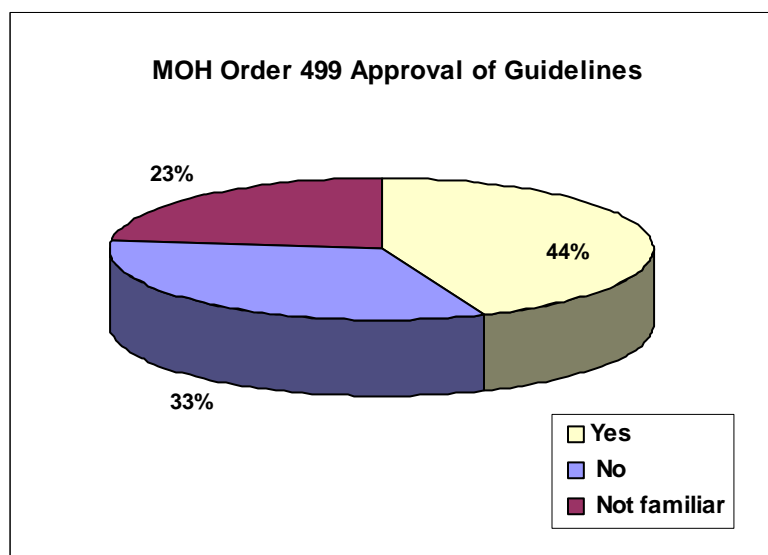
### **MOH Order “Actions Regarding Implementation of Parliament Hearings' Recommendations” № 407 of 09.02.2003**

The majority affirmed that changes are necessary to the Ministry of Health of Ukraine (MOH) Order, “Actions Regarding Implementation of Parliament Hearings' Recommendations, namely: “Actions Required to Abolish the TB Epidemic in Ukraine” № 407 of 09.02.2003. Only 15% believed that no improvements were necessary, and 28% were not familiar with this order.



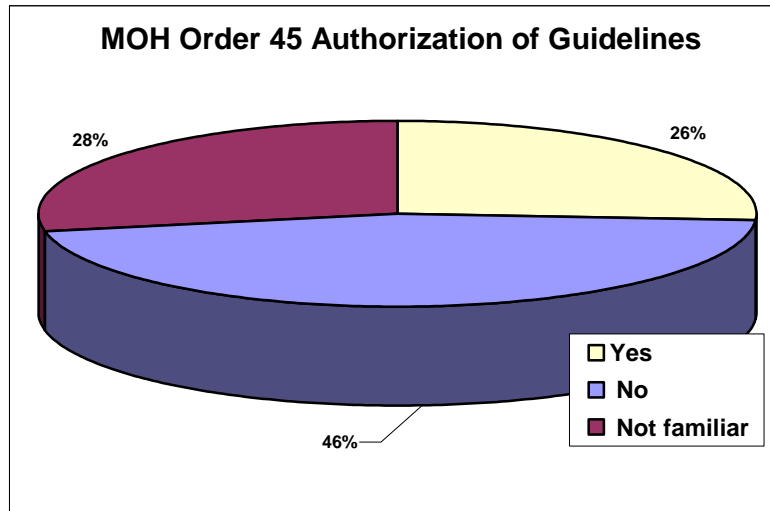
### **MOH Order “Approval of Guidelines Regarding Medical Care of TB Patients and Patients with Non-Specific Lung Diseases” №499 of 10.28.2003**

Participants were asked whether the MOH Order, “Approval of Guidelines Regarding Medical Care of TB Patients and Patients with Non-Specific Lung Diseases” №499 of 10.28.2003, needed improvement. Forty-four percent of respondents said that it did, while 33% said that it did not. Twenty-three percent were not familiar with the document.



### **MOH Order “Approval of Guidelines Regarding Bacteriological Diagnostics of TB Infection” №45 of 02.06.2002**

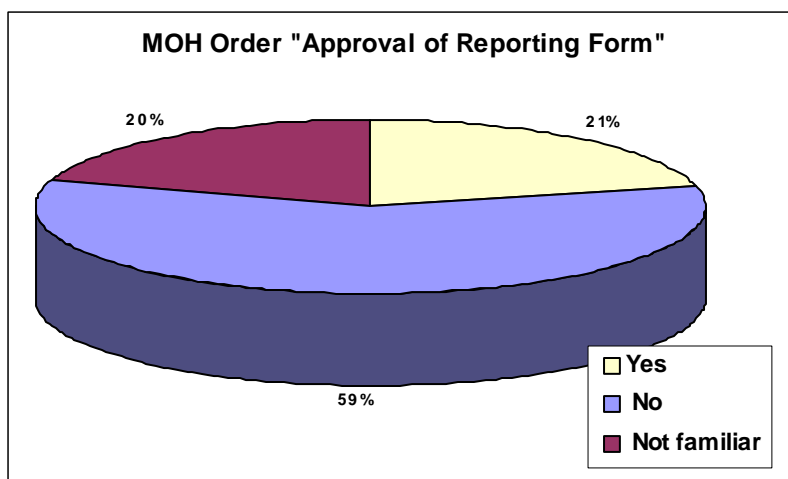
Regarding the MOH Order, “Approval of Guidelines Regarding Bacteriological Diagnostics of TB Infection” №45 of 02.06.2002, 26% of survey respondents answered that this order needs improvement, while 46% said that it did not. Another 28% are not familiar with this MOH Order.



### **Order of MOH and State Committee for Statistics of Ukraine “Approval of Primary Recording Form №089/0 – Notification of Newly-Detected Active TB Patient or TB Relapse Patient Diagnosis and Guidelines How to Fill It Out” №112/139 of 03.25.2002**

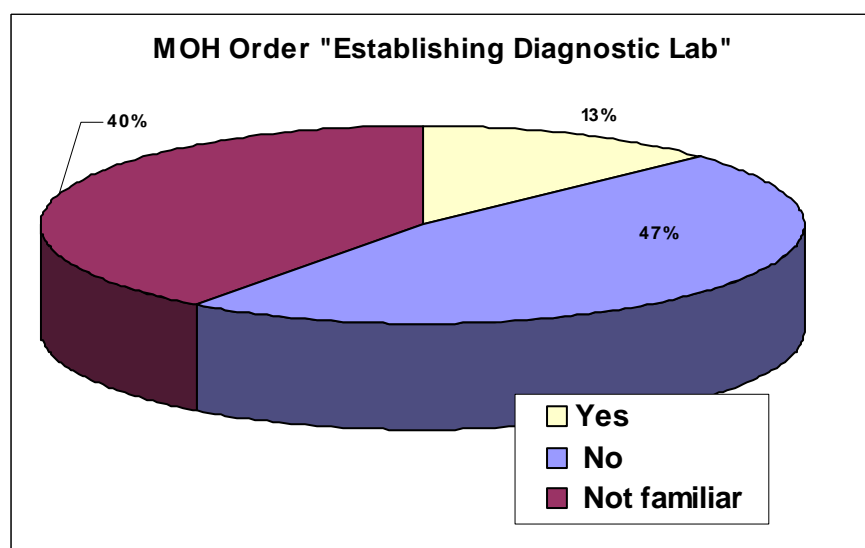
The survey asked respondents about the Order of MOH and State Committee for Statistics of Ukraine, “Approval of Primary Recording Form №089/0 - Notification of Newly-Detected Active TB Patient or TB Relapse Patient Diagnosis and Guidelines How to Fill It Out” №112/139 of 03.25.2002. The majority of respondents (59%) said that the Order does not need any improvement. A total of 21% of survey respondents stated the document needs improvement and another 20% were not familiar with the document.





**MOH Order “Establishing a clinic and diagnostic laboratory at the MOH Reference Center for TB microbiological diagnostics” №566 of 05.12.2003**

Regarding the MOH Order, “Establishing a clinic and diagnostic laboratory at the MOH Reference Center for TB microbiological diagnostics” №566 of 05.12.2003, most respondents said that this document does not need to be improved. Thirteen percent of respondents said that it needs improvement, and 40% were not familiar with the Order.



## **Additional Documents Needing Improvement**

Respondents were asked to list other documents, not already mentioned that they felt needed to be improved or altered. The majority of respondents (79%) did not respond to this question. Ten respondents (21%) felt that additional documents need improvement or should be developed. Five chief specialists of the health facilities (11% of respondents) said that the following MOH instructions should be improved:

Approved by the MOH Order #233, 07.29.1996:

1. "On Fluorography Exams"
2. "On Using Tuberculin Tests"
3. "On TB Patients' Referral to Sanatoriums"
4. "On Discharging TB Patients from the Hospital"

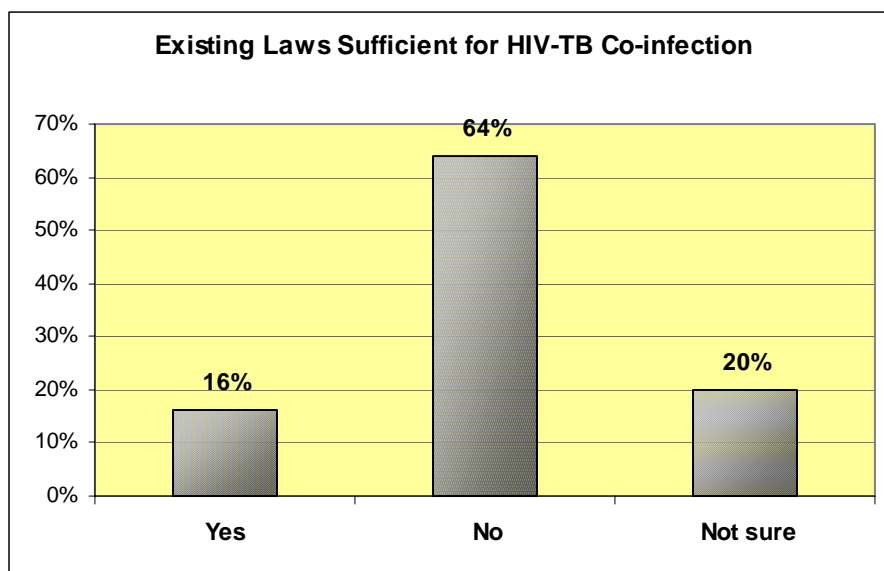
Approved by the MOH Order #26, 02.14.1996

5. "On Improving TB Services"

Four percent of these respondents felt that legislative documents should be developed regarding work in infected regions and social protection of TB medical providers. For example, they suggested that TB medical providers be included in the list of professionals covered by the Presidential order stating that one year of work in a high-risk environment should be counted as two years of service. One respondent felt that urgent actions must be taken to establish closed TB facilities for patients with infectious TB, as there is no clear policy regarding marginalized population groups such as homeless people, drug users, or alcoholics.

## **Existing Laws Sufficient for HIV-TB Co-infection**

The survey questionnaire asked whether respondents think that existing laws are sufficient for the integrated management of HIV-TB co-infected patients. Only 16% of the respondents felt that existing laws were sufficient, whereas 64% stated that the laws are insufficient. A further 20% were not sure.



When respondents answered that existing laws were not sufficient, they were asked to specify the components of the laws that, in their opinion, needed to be added or revised.

- Seventeen percent of these respondents said that it is necessary to raise the salary of medical personnel providing service to HIV-TB co-infected patients. Currently, medical providers working in HIV centers receive an extra 60%, while medical personnel in TB hospitals are compensated an extra 45%.
- Another 17% said that it is important that the law regulate hospital TB drug supply.
- Ten percent of respondents felt that laws should require obligatory treatment for TB patients, including criminal charges for those avoiding treatment. They also think that a separate department should be established in hospitals for HIV-TB co-infected patients.
- Seven percent said that it is necessary to develop treatment schemes for patients with HIV-TB co-infection.

### **Obstacles in the Fight against TB in Ukraine**

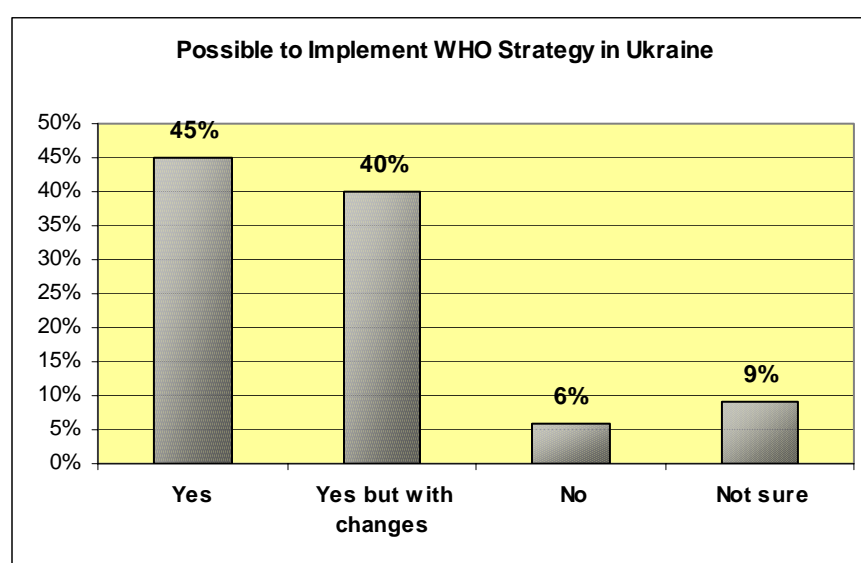
The questionnaire asked respondents what they perceived to be the obstacles to effectively fighting the TB epidemic in Ukraine. A summary of responses indicating these obstacles is presented in the table that follows:

	<b>Obstacles</b>	<b>%</b>
1	Poor socioeconomic status of population	43%
2	Lack of TB specialists, especially young TB doctors	32%
3	Insufficient funding of TB hospitals	23%
4	Low salary of TB personnel	15%
5	Poor environmental conditions	15%
6	High rate of HIV, alcoholism, and unemployment	11%
7	Absence of compulsory treatment of TB patients	9%
8	Insufficient legislative base on TB	9%
9	Lack of mechanism to influence TB patients to complete treatment	4%

	<b>Obstacles</b>	<b>%</b>
10	Lack of information on TB in the mass media for general population	4%
11	Lack of social adaptation support for TB patients released from prisons	2%

### **Attitudes Toward the WHO-recommended TB Control Strategy**

The survey asked respondents if they believed that it was possible to implement the WHO-recommended strategy on TB control in Ukraine. Forty-five percent responded positively, and another 40% said it was possible with changes. Only 6% stated they did not think it was possible, and another 9% said that they were not sure.



### **Positive and Negative Aspects of WHO Strategy**

The survey asked respondents what the positive and negative aspects are of the WHO-recommended strategy on TB control. Twenty-one percent of the respondents did not answer this question. Forty percent of those who responded provided both positive and negative feedback. Twenty-six percent had only positive feedback, while 13%, only negative. The most common opinions are listed below:

#### Positive aspects

1. Full supply of TB drugs and laboratory equipment and reagents (30% of all respondents)
2. Standardized treatment scheme (24%)
3. Economically more effective treatment (19%)
4. Reduced time for in-patient treatment (15%)
5. Improved quality of diagnosis (15%)

6. Patients economically motivated to be treated (food rations) (15%)
7. Controlled process of treatment (11%)

#### Negative aspects

1. Treatment results determined based only on presence or absence of bacillus elimination (19%)
2. Individuals' reaction to drugs and presence of other diseases are not taken into consideration (9%)
3. Complicated reporting (9%)

### **Facilitating Implementation of WHO Strategy in Ukraine**

Respondents were asked to list the changes that, in their opinion, are necessary for the WHO-recommended strategy on TB control to be successfully implemented in Ukraine. Thirty-two percent didn't respond to this question.

A summary of responses is provided in the table below:

	<b>Needed Change</b>	<b>Percent</b>
1	WHO-recommended strategy should be integrated into the National TB Control Program	15%
2	Motivate medical personnel (increase salaries)	13%
3	Increase government funding at all levels	13%
4	Patients should be responsible by law for adhering to treatment	9%
5	Establish quarantine TB medical facilities	6%
6	Continue planned fluorography exams of general population free of charge	6%
7	Improve legislative base	6%
8	Increase time for intensive treatment	4%
9	Increase staff of TB doctors and nurses	4%
10	Reporting forms should correspond with international standards	2%
11	Ensure regular supply of food rations to all who receive out-patient treatment	2%
12	Improve informational campaign for population	2%

### **Interest in Policy Working Group**

The questionnaire inquired as to whether the respondent would be interested in participating in a working group to develop proposals to the Verkhovna Rada (Parliament), the Cabinet of Ministers, and MOH to improve regulatory legislation on TB control. About one third (31%) of respondents affirmed their interest, and 69% said they would not be interested.

## VII. Conclusions and Recommendations

The survey results show that the vast majority of respondents (90%) is either not satisfied or not completely satisfied with current Ukrainian laws on TB control and sees a need for improvement. Some of the recommended changes are likely not immediately feasible because of budget issues (for example, increased funding for TB facilities and increase salaries for medical personnel). Other recommended changes are not advisable because they would infringe on patients' human rights (forced TB treatment, criminal charges for avoiding treatment, and quarantine TB hospitals). Some changes are feasible and will be taken into consideration by the project team, such as improving laws and policies and increasing TB information in the mass media for the general public.

The survey highlighted the respondents' lack of knowledge regarding current TB legislation. Some decision-makers are not familiar with current TB laws or regulatory documents (from 2% to 40% depending on the document). When asked whether additional TB documents need to be improved, 79% of them did not answer. Further, some respondents don't have a correct understanding of legislative documents. For example, the National Program on TB Control for 2002 – 2005 endorsed the main components of the WHO-recommended strategy, but 15% of respondents stated that the WHO strategy needs to be incorporated in the National Program.

It is important to educate policy- and decision-makers on current TB regulatory and legal documents and review some of the documents at appropriate trainings and other events organized by the project. It is also necessary to follow up with some survey participants to clarify proposed changes, establish a working group to further define needed legislative reform, and to develop proposals to the Verkhovna Rada, the Cabinet of Ministers, and MOH.

The survey results demonstrated that respondents have mixed attitudes regarding the WHO-recommended TB control strategy. Forty-five percent of the respondents believe that it is possible to implement the WHO-recommended strategy in Ukraine, which indicates progress in seeing the benefits of the WHO program. Another 40% said it is possible with changes, and the rest of the respondents said it is not possible, or they are not sure. These respondents may fear the added responsibility of monitoring and supervision tasks in the absence of additional funding. Some of them feel that the outpatient phase of treatment is ineffective as many Ukrainian TB patients are poor and lack sufficient resources to assure good nutrition and living conditions.

The fact that 21% of the respondents could not list positive or negative aspects of the WHO-recommended strategy on TB control and some proposed changes indicates a lack of knowledge of this strategy by some policymakers and local experts. More work needs to be done to educate them on the benefits and key issues of WHO-recommended TB treatment methods.

Based on the survey findings, the following key activities are recommended:

- Establish a working group to further define legislative reform, recommend additional changes, and monitor legislative developments related to TB control;
- Convene national technical symposia for policymakers, local decision-makers, and TB experts;
- Distribute key technical literature on TB control among TB experts and facilitate their access to up-to-date information available on the Internet;
- Review appropriate TB regulatory documents during trainings and other events conducted by the project to increase familiarity with current laws;
- Conduct regional seminars on various key issues on TB control.

## **Support to Ukraine in Implementing National TB Program TB Policymakers Survey - Questionnaire**

Dear colleagues

The International nonprofit organization PATH within 25 years of its activity has implemented more than 1000 health care projects in 120 countries of the world. Our Ukraine Office opened in Kyiv in 1994. We've implemented in Ukraine a number of health projects such as assisting in diphtheria epidemic and HIV epidemic control, support of breast cancer control and others.

Since October 2003 we have started introducing the project «Support to Ukraine in Implementing National TB Program». Currently the working group is developing «Detailed Implementation Plan». For the purpose of coordination of common efforts both of the Ukrainian and international partners and to work out the project component "Improving the regulatory legislation to control TB" for its further implementation, we make a request to answer a few questions given below. Confidentiality of the information will be preserved; your answers will not be given to anyone.

Thank you for your assistance and cooperation.

1. What is your position?
  1. Head/key specialist of the National/Regional Authority (Parliament, Cabinet of Ministers of Ukraine, oblast/city/rayon state administration)
  2. Head/key specialist of the Health Authority
  3. Head/key specialist of the Health Facilities
2. Are you satisfied with acting regulatory legislation regarding TB control in Ukraine for your professional activity?
  1. Yes
  2. No
  3. Not completely
  4. Can not answer
3. In your opinion, which regulatory and legal documents need further improvement, matching international requirements to control more effectively the TB epidemic and to eliminate existing contradictions and discrepancies?
  1. Law of Ukraine «On TB control» №2586-III of 05.07.2001
    - 3.1.1. There is a need for improvement
    - 3.1.2. No need for improvement
    - 3.1.3. I am not familiarized with this document.
  2. Law of Ukraine "Protecting population against infectious diseases" № 1645-III of 06.04.2000
    - 3.2.1. There is a need for improvement
    - 3.2.2. No need for improvement
    - 3.2.3. I am not familiarized with this document.
  3. President's Decree (Ukase) «On urgent actions as to TB control» №679/2000 of 11.05.2000



- 3.3.1. There is a need for improvement
  - 3.3.2. No need for improvement
  - 3.3.3. I am not familiarized with this document.
4. National Program on TB control for 2002 – 2005.
    - 3.4.1. There is a need for improvement
    - 3.4.2. No need for improvement
    - 3.4.3. I am not familiarized with this document.
  5. Regulation of the Cabinet of Ministers of Ukraine (CMU) «Establishing Interagency Commission on TB control» №1480 of 28.09.2000
    - 3.5.1. There is a need for improvement
    - 3.5.2. No need for improvement
    - 3.5.3. I am not familiarized with this document.
  6. Regulation of CMU «On nutrition quota for TB patients and people infected with TB mycobacterium» №1752 of 27.12.2001
    - 3.6.1. There is a need for improvement
    - 3.6.2. No need for improvement
    - 3.6.3. I am not familiarized with this document.
  7. Ministry of Health of Ukraine (MOH) Order «Actions regarding implementation performance of Parliament hearings' recommendations, namely: «Actions Required to Abolish the TB Epidemic in Ukraine» №407 of 02.09.2003
    - 3.7.1. There is a need for improvement
    - 3.7.2. No need for improvement
    - 3.7.3. I am not familiarized with this document.
  8. MOH Order «On authorization of Guidelines regarding medical care of TB patients and patients with non-specific lung diseases» №499 of 28.10.2003
    - 3.8.1. There is a need for improvement
    - 3.8.2. No need for improvement
    - 3.8.3. I am not familiarized with this document
  9. MOH Order «On authorization of Guidelines regarding bacteriological diagnostics of TB infection» №45 of 06.02.2002
    - 3.9.1. There is a need for improvement
    - 3.9.2. No need for improvement
    - 3.9.3. I am not familiarized with this document
  10. Order of MOH and State Committee for Statistics of Ukraine «On authorization of primary recording Form №089/o «Notification on newly-detected active TB patient or TB relapse patient diagnosis and Guidelines how to fill it out» №112/139 of 25.03.2002
    - 3.10.1. There is a need for improvement
    - 3.10.2. No need for improvement
    - 3.10.3. I am not familiarized with this document
  11. MOH Order «On establishing of clinic and diagnostic laboratory at the Reference center of MOH for TB microbiological diagnostics» №566 of 05.12.566
    - 3.11.1. There is a need for improvement

3.11.2. No need for improvement

3.11.3. I am not familiarized with this document

4. Please point out documents not mentioned above that, in your opinion, need improvement or alteration.

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5. Do you think that existing regulatory legislation is sufficient for integrated management of HIV/TB co-infected patients?

1. Yes

2. No

3. Cannot answer.

4. If your answer is «No», please, specify what components, in your opinion, need more detailed reflection in regulatory legislation. \_\_\_\_\_

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6. What, in your opinion, hinders the effective response to the TB epidemic?

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2. \_\_\_\_\_  
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3. \_\_\_\_\_  
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7. Is it possible to implement the WHO–recommended strategy on TB control in Ukraine?

1. Yes

2. No

- 3. Cannot answer
- 4. Yes, but with alterations

8. Please, point out what alterations, in your opinion, it is necessary to make in WHO – recommended strategy on TB control to implement it successfully in Ukraine? .

1. \_\_\_\_\_  
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\_\_\_\_\_  
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2. \_\_\_\_\_  
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3. \_\_\_\_\_  
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9. What are the positive and negative aspects, in your opinion, of WHO-recommended strategy on TB control?

1. Positive aspects

9.1.1. \_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

9.1.2. \_\_\_\_\_  
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9.1.3. \_\_\_\_\_  
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2. Negative aspects

9.2.1. \_\_\_\_\_  
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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. Would you be willing to participate in the activity of a working group in development of proposals to Verkhovna Rada (Parliament), Cabinet of Ministers, and MOH to improve regulatory legislation as to TB control?

- 1. Yes
- 2. No

11. If you give positive answer (yes) to the question No 10, please, contact us.

Our telephone No and address are as follows: 18/2, Kruglouniversitetskaya St., Apt.2 01024  
Kyiv, Ukraine;  
Tel./Fax: (044) 253 90 28//56/68

**Thank you very much for your cooperation and participation in our survey.**

# **Knowledge and Awareness of TB Among People Living with HIV in Two Regions of Ukraine**

## **Focus Group Research Report**

*For the project:*

**Support to Ukraine in Implementing Its National TB Program**



**April 2004**

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Attachment A: Draft Focus Group Discussion Topic Guide

## **Study Design**

In February 2004, Program for Appropriate Technology in Health (PATH) hired Socis Analytical Center of Kyiv, Ukraine to conduct research on opinions and health behaviors of people living with HIV/AIDS (PLHA) related to tuberculosis (TB). The research was part of the project “Support to Ukraine in Implementing Its National TB Program,” which includes public awareness campaigns and targeted interventions for people with TB-HIV co-infection. The goal of the research was to analyze awareness, practices, and perceptions of PLHA to inform the development of a future TB educational campaign.

Socis conducted five focus group discussions (FGDs): three in Kyiv City, one in Mariupol (Donetsk Oblast), and one in Makiyivka (Donetsk Oblast). The research was conducted in early March 2004. Participants were recruited with assistance from HIV/AIDS service organizations and personnel of the municipal centers for preventing and combating HIV. Socis staff led the groups and analyzed the results. PATH provided the topic guides.

## **Findings**

### **Knowledge About TB**

Many participants were not fully aware of the risk of airborne transmission of TB. Participants noted that there are various forms of TB that affect the lungs, bones, lymph nodes, etc. Most of the respondents were aware that TB is curable; however, this was the subject of much debate. A few participants specified that successful treatment depends on the patient receiving the complete course of medication-based treatment.

Most participants had personal experience with TB either having known someone with TB or experienced TB themselves. A few knew people who died of TB and several had encountered TB while in prison. Participants with personal experience were the most active group members and had the highest level of TB knowledge. Some participants felt that it is more difficult to diagnose TB among HIV-infected individuals. Many participants cited examples of patients whose condition deteriorated over a long period the traditional diagnostic methods (Mantoux test and fluorography) did not detect the presence of TB bacteria, and the patient was eventually diagnosed only following an X-ray examination and complex laboratory analysis.

Most participants agreed that HIV-infected persons face a higher-than-average risk of contracting TB due to their immune-compromised state. However, a minority of participants did not recognize their risk as being greater than that of the population in general.

Analysis of the group discussions indicate that, once diagnosed with HIV, people’s attitudes become more favorable and compassionate towards people suffering from serious diseases. PLHA demonstrated a higher sensitivity to the problems patients face and a willingness to provide assistance. In part, this attitude is attributable to more exposure to ill people, a greater perception of risk of contracting infections themselves, supported by the comment; and “We can also find ourselves in their position.”

A number of common beliefs surfaced during the discussions. Some of these opinions and misconceptions inhibit PLHA from suspecting they may have TB. They include: TB treatment is expensive; it is not worth going to a doctor because HIV-infected people are more susceptible to

fever, persistent cough, and fatigue; anti-retroviral therapy provokes activation of TB bacteria; x-rays can cause serious damage to one's health; and the opinion that many TB doctors do not know enough about HIV to treat them correctly.

"At the TB prevention center they have an old man who has been sitting there ever since the war. He is the doctor; he was educated 50 years ago; who can talk of AIDS with him? He may not even know what AIDS is."

"They do not know which course AIDS takes when accompanied by TB. In the x-ray it may look like plain bronchitis or lung inflammation. If the doctor is competent, and knowledgeable about HIV, he will see that it is surely TB. But an ordinary phthisiotherapist will say, 'It is just lung inflammation.' I encountered such situations on three occasions."

"HIV-infected persons should go on receiving triple anti-TB therapy for at least a year. But in just half a year [the doctors] already want to call off the diagnosis, because it's an epidemic and they are to achieve certain planned statistics..."

Some of these ideas prevent PLHA from correctly perceiving their risk of infection, from seeking timely health care, or from getting life-saving treatment early enough to be effective.

### **Behavior of PLHA in the Context of the TB epidemic**

The FGDs support the conclusion that most HIV-infected persons tend to avoid going to medical institutions for as long as possible. They frequently practice self-treatment, folk-medicine, or are unable to see the type of specialist that they want. Many turn to the recommendations of friends who also have HIV.

"I use self-treatment, because it makes no sense to go to our hospital: that requires money."

"I personally go there once every half a year – or undergo analyses – visit specialists, so as to know where I stand. And when I have fallen ill or gotten a sore throat, I just go to the pharmacy, buy all the [necessary] medications and undertake self-treatment. It's because going to the hospital is unrealistic; the doctors won't understand us."

"I have had a persistent cough for a long time, but I do not go – I do not go to the hospital because that would be a headache."

Some of the main factors underlying PLHA's attitudes of bias towards medical institutions include:

- Stigmatization of PLHA on the part of medical staff. According to participants, stigma is exhibited through demand for payment at "increased" rates for professional advice; diagnostics and treatment of any disease; insistence on purchasing specific, expensive medications directly from the doctor; refusal to provide medical care; and indifferent or insulting attitudes. Some doctors have conveyed their feeling that treating AIDS patients is a waste of time and money. Participants' experience with AIDS doctors is the only exception, as they are reported to provide care, advice, and compassion.



“The doctors in Zhytomyr told my parents: ‘If you want him to undergo treatment, the therapy will cost USD1,200 per year. You will have to sell your apartment, your car, and everything else... but you won’t save him anyway...’ My mother’s instinct prevailed; she went somewhere and got things her way... She came [to Lavra Clinic] and it simply turned out that everything was free here. My weight used to be 38 kilograms; now it’s 67. I used to have first-degree dystrophy and molecular TB. It’s been a month since I started receiving therapy at Lavra and I can see that it produces real results.”

- Little or no confidence in the qualifications of medical staff, particularly in their ability to treat diseases in PLHA. In nearly all the group discussions, participants cited personal examples of erroneous diagnosis of many diseases, including TB. Some cited the example of being prescribed inappropriate medications that resulted in complications.

“I bought these medications (at the doctors’ recommendation) and read [the instructions]; they turned out to be contra-indicated in my case – absolutely so.”

“You go to one doctor and you listen to him; then you go to a different doctor... I do so myself because I don’t trust them. And when there are two or three results, I make a generalization on my own and decide what to do.”

- Apprehension that doctors might not respect confidentiality of patient’s HIV status. Participants felt that this problem is particularly important in small towns. This dynamic influences some PLHA to delay treatment and some to travel to Kyiv for treatment. According to respondents, disclosure of the HIV-positive status of someone living in a small town means that the whole family is blamed as if they had been given a “guilty verdict.”

“The mother of my classmate is our cardiologist; if I come there, the whole district where I live will know about it. Everything stops there; it’s better not to go.”

- Shortage of money. The first associations that come to the minds of a large part of FGD participants when they hear words like “hospital,” “polyclinic,” or “doctor,” are “considerable expenses” or “a lot of money” that they cannot afford. Most participants were not aware that TB diagnosis and treatment are free, or doubted that could be true.
- The overall decline of medical institutions and TB dispensaries in particular. FGD participants vividly described awful conditions and obsolete, depreciated equipment at hospitals and TB dispensaries, as well as a lack of elementary medications and materials. This type of problem is particularly pronounced in provincial areas such as Mariupol and Zhytomyr. Bribery by medical personnel was reported to be common, necessitating consideration of a considerable increase in staff salaries to reduce informal payments and enhance doctors’ motivation to be more attentive to the patients.

In view of the problems outlined above, PLHA resort to specific measures to access medical assistance. These measures include concealing their HIV-positive status; promising to pay for officially free services, and then reneging on their promise after the operation or service has been completed; quarrelling with doctors; and looking for ways to emigrate. A few participants mentioned the importance of being knowledgeable of one’s legal rights to medical attention. In three of the five groups, participants spoke of the importance and necessity of introducing medical insurance as a tool for attracting more funds to the public health realm and resolving its current financial crisis. At the same time, participants did not display sufficient understanding of

the principles of insurance; namely, that the insured person has to pay insurance premiums before the insurance benefits him or her.

Thus, delay in seeking care and failure to follow doctor's orders results on one hand from the decline of the public health service, insufficient qualifications of medical personnel, and the high level of stigmatization of people with HIV by medical personnel and, on the other hand, from the patients' insufficient knowledge of the heightened personal risk of contracting TB, the symptoms of the disease, the possibility of free diagnosis and treatment, and their legal rights as patients.

### **Sources of TB information and Suggestions for Educational Campaign**

Most participants felt that demand for TB educational materials is low unless a person has a personal encounter with the illness. Most participants had not yet seen any informational materials on TB and many stated that even if they saw printed materials or if a TB-related spot were on TV they were not sure that they would pay attention. In Kyiv, several participants recalled having recently seen modern-type posters at their TB dispensary or bright leaflets that were distributed in their neighborhood.

"Here, the situation with information on TB is the same as on the Internet – it is available but you have to know how to look for it."

"On television or on the radio – I think it is just a waste of money... That is, there are very few conscious people who will listen to that... There you sit watching TV; bingo! – they show a spot on TB. You react automatically to it – bang! – a different channel."

Participants felt that any educational campaign should capture the attention of the target group to make them feel a need to know more about TB. PLHA can be effectively involved and impacted. Most of the participants who were at first reluctant to talk about TB or who displayed indifference later expressed considerable interest in learning more. The apparent shift in attitude is linked to their realization that HIV-positive people face a heightened risk of contracting TB as confirmed by the personal experience of a number of participants.

Infectious diseases specialists are the doctors that PLHA trust most. Participants were interested in getting information from this source as well as from materials that detailed statistics about prevalence of TB among the general public and the percentage of HIV-infected persons who die of TB. Well-substantiated information on how AIDS patients can be cured of TB was also of great interest. TB educational materials should cover the following content:

- TB symptoms and the need to seek immediate medical care for persistent cough;
- The course of the disease, its stages, and optimistic prospects of TB treatment;
- Diagnostic methods focusing on the specificity of AIDS patients' health conditions;
- The need to undergo the complete course of TB therapy with explanation of duration of treatment;
- Legal guarantees of free TB diagnosis and treatment with reference to laws and doctors' responsibility to offer services;
- Warning against self-treatment; and
- Methods for preventing TB infection.

Participants suggested that educational materials meet the following criteria:

- Simple, easily understandable presentation of factual and useful information;

- Use of comic strips in printed materials especially those meant for vulnerable groups that “don’t like reading,” including injecting drug users, commercial sex workers, and homeless;
- No unnecessary glitter or hypocrisy;
- Short in duration, with several different versions of a social publicity spot, particularly in animation;
- Emphasize that content of informational materials is more important than their form;
- Show TB spots at different times of the day particularly primetime and not among other TV commercials as many people change channels or “tune out”;
- Pre-test all materials with representatives of specific target audiences and only through an objective company unrelated to the designers of the media products or printed matter;
- Publish printed materials alongside TV spots aimed at the general population and specific social groups in particular juveniles and young people, PLHA, drug users, poor people, etc;
- Distribute materials through social workers, nurses, physiotherapists, infectious disease doctors, AIDS service organizations, and in public venues; and
- Display TB posters in medical institutions as well as public places such as railway stations, markets, pharmacies, public transport, and educational institutions.

Participants suggested that doctors also need training to accompany the informational campaign. Training for AIDS specialists should be a priority and training of general medical personnel should aim to destigmatize TB. Informational campaigns should emphasize a healthy lifestyle particularly for young people.

“It seems to me that it is necessary to look for ways of explaining TB prevention to people so that they can avoid it – so that they lead a healthy life. That is, I think that information of this sort is necessary on TV as well as on the radio – and that it probably makes sense just to hand out booklets to people in the street. Then maybe someone will read them and understand something.”

Lastly, participants support efforts to adopt social policies of the state in any way necessary to fight the TB epidemic and increase the population’s standard of living.

## Conclusion

The results of the research indicate that a TB educational campaign is urgently necessary and should take into account the numerous suggestions of PLHA. Measures targeting PLHA should be part of that campaign. Overall, PLHA lack knowledge about TB and underestimate their personal risk of being infected with TB. Personal experience with TB greatly influences an individual’s attention and attitudes towards the subject. Numerous misconceptions prevail among PLHA which well-produced educational materials can help to dispel. There is also a need to educate PLHA and the general public about their legal rights to free TB diagnosis and treatment under current Ukrainian law.

To be effective, an educational campaign should attract the target audience’s attention, be short and widely distributed, encourage timely, health-seeking behavior, and point out options for diagnosis and treatment. Simultaneously, provider training should be offered to ensure that doctors know how to deal with HIV-TB co-infection.

Date (day/month/year): _____	Time focus group began: _____
Name of facilitator: _____	Time focus group ended: _____
Name of recorder: _____	Age of group participants: __ >30 __ <30

**TB Project in Ukraine**  
**DRAFT Focus Group Discussion Topic Guide**

**GUIDE A: PLHA**

**INTRODUCTION**

*Read the Introduction (see attached) that explains the purpose of the group.*

*Ask participants to complete the background information form. This should be done individually.*

*Tell participants that if at any time they don't feel comfortable with a topic, they are not required to speak. There are no wrong or right answers.*

**ATTITUDES TOWARD HEALTH SERVICES**

*The facilitator should begin the discussion by saying:*

Today we will be discussing some issues that are important to men and women in Donetsk, Kyiv, and across Ukraine – that is health care, how we seek and receive health care, and how we learn information about health topics. We will also talk about tuberculosis in particular.

Let's first talk about your experiences when you have needed medical care.

The facilitator should ask each participant to answer in turn. She/he then should follow up with questions and open the discussion up to the group. The facilitator should explore feelings about where participants go for medical care, and for what reasons they seek medical care. Discuss how people feel about seeking health care, and how they are treated when they go to medical facilities.

What do you think about the situation of health care in Ukraine right now?

Tell me about your experiences when you have gone to a medical facility to seek health care.

**Probe:**       Where do you go for health care? Who provides health care to you?  
                   How long do you wait to be seen by a trained medical provider?

What is the medical provider's attitude towards you? What do they say and do? What are your feelings about this?  
 In general, what do you like when you go to see a medical provider?  
 In general, what do you dislike when you go to see a medical provider?  
 Describe a particular experience you had when you sought health care at a medical facility.

## HEALTH-SEEKING PRACTICES

Normally, do you get medical care when you feel a need to?

**Probe:** if not, why not? ? *(don't read this list – just take notes of responses, or give an example if necessary)*

- cost
- transportation
- not sure where to go
- stigma
- privacy and confidentiality issues
- don't like to wait
- have to care for children
- attitude of health providers
- can't leave work
- afraid to find out that something is really wrong
- will probably be told that nothing is wrong
- other...

How often in a year do you get medical care?

**Probe:** For what types of medical problems?  
 Where do you go for medical care?  
 How long do you normally wait before you go get medical care?

**Probe:** When you realize something is wrong, what symptoms tell you this?  
 What else? What other signs tell you when your health needs attention?  
 Take coughing, for example, when do you know that the cough is not normal?

## KNOWLEDGE OF TB

Have you ever heard of tuberculosis?

**Probe:** What have you heard about tuberculosis?  
 How did you first hear of tuberculosis?  
 What are the symptoms or signs of tuberculosis?  
 In your opinion, how is tuberculosis transmitted (passed from one person to another)?

**Probe:** In what ways are you sure that tuberculosis can not be transmitted?  
 How is tuberculosis treated? What can happen if it is not treated?  
 Can tuberculosis be cured?  
 In your opinion, is tuberculosis a major health problem in Ukraine?  
 Who is at particular risk of getting infected with TB?

### ATTITUDES TOWARD PEOPLE WITH TB

Have you ever know someone who has tuberculosis?

**Probe:** How did you learn they had tuberculosis?  
 What was your reaction – what did you think/feel at that time?  
 Did anything change in the way you relate to that person?

How would you feel if a member of your family had TB?

**Probe:** How would you treat them? What would you do for them?  
 Would anything change in the way you relate to them? If yes, what?  
 Would you give your family member any advice? If so, what advice would you give them?

What do you feel regarding TB medical facilities?

**Probe:** Do you feel comfortable to visit such facilities in case of TB symptoms?  
 Do you think you will get appropriate care, diagnostics, and treatment?  
 Do you feel fear being infected?  
 Do you feel stigmatized?  
 Are you sure that confidentiality would be ensured in these facilities?

### OPINIONS AND PREFERENCES REGARDING EFFECTIVE MEDIA

Where do you get information about health topics?

**Probe:** If from a person, from whom? *(don't read list –take note of responses)*

- friends or co-workers
- family members or spouse
- medical provider
- school teacher
- other...

**Probe:** If from the media, what source? *(don't read list –take note of responses)*

- TV
- radio
- billboards
- magazines

- newspapers
- brochure or printed matter
- other...

What source of information do you trust the most, and why?  
From what source would you like to learn more about TB?

**Probe:** If media, what kind of media?  
If people, what people?  
If printed materials, what kind? (describe)  
Why do you prefer this source of information? What makes this source trustworthy?

If you were to read a brochure or poster about TB, what would make it interesting to you?

- colorful
- celebrity/famous person
- simple, easy-to-read
- good content & information
- other...

If you were to see a television spot informing you about TB, what would make it interesting to you?

**Probe:** What should a good TV spot on TB be like?  
What style should it be?  
How long should it be?  
What information should it include?  
What time of day should this TV spot be on?

How about a radio spot – what would make that interesting to listen to?

**Probe:** What should a good radio spot on TB be like?  
What style should it be?  
How long should it be?  
What information should it include?  
What time of day should this radio spot be on?

If you saw a spot about tuberculosis on TV, or heard one on the radio, what would make you *act* or take the spot seriously?

What messages are most important to pass to the public about tuberculosis?

## CONCLUSION

We will close today's meeting with some final thoughts.

*The facilitator should read the following text to the participant:*

Some of the topics we discussed today are very personal things for people to talk about. We want to thank you for sharing your honest thoughts and personal opinions today. Think for a moment about what we have talked about.

Ask each person if there is anything else she would like to add. Conclude by saying:

***We are now finished. How do you feel about our discussion? Do you have any suggestions for improving the group process?***

Here are our business cards in case you have any more questions or comments you wish to share after the interview. We have refreshments, coffee, and cookies if you like.

*The facilitator should thank the participants and tell them that their contribution has been very valuable. Emphasize that this information is being used to improve health education campaigns according to their realities and preferences.*

## AFTER THE FOCUS GROUP

*Immediately After the Discussion:*

- Facilitator and notetaker debrief together.
- Look over the participants' background information forms.
- Make a note of suggested changes in the way the group or interview is conducted or in the technical aspects of the logistics.
- Revise, edit, and complete notes.

*That Afternoon or Evening (notetaker &/or facilitator) – DO NOT DELAY THIS STEP:*

- Review the recording; make clarification notes as necessary.
- Complete and correct the notes in accordance with the recording.
- Summarize important themes or points made in the summary section of the interview.
- Send the tape and the clarification notes to be transcribed.
- Meet with the other project staff to discuss how the focus groups and interviews are going. Share suggestions for changes for the guide or about the interviews/focus group discussions.



**Attachment B**

**Response to Application Briefing**

## **Response to Application Debriefing**

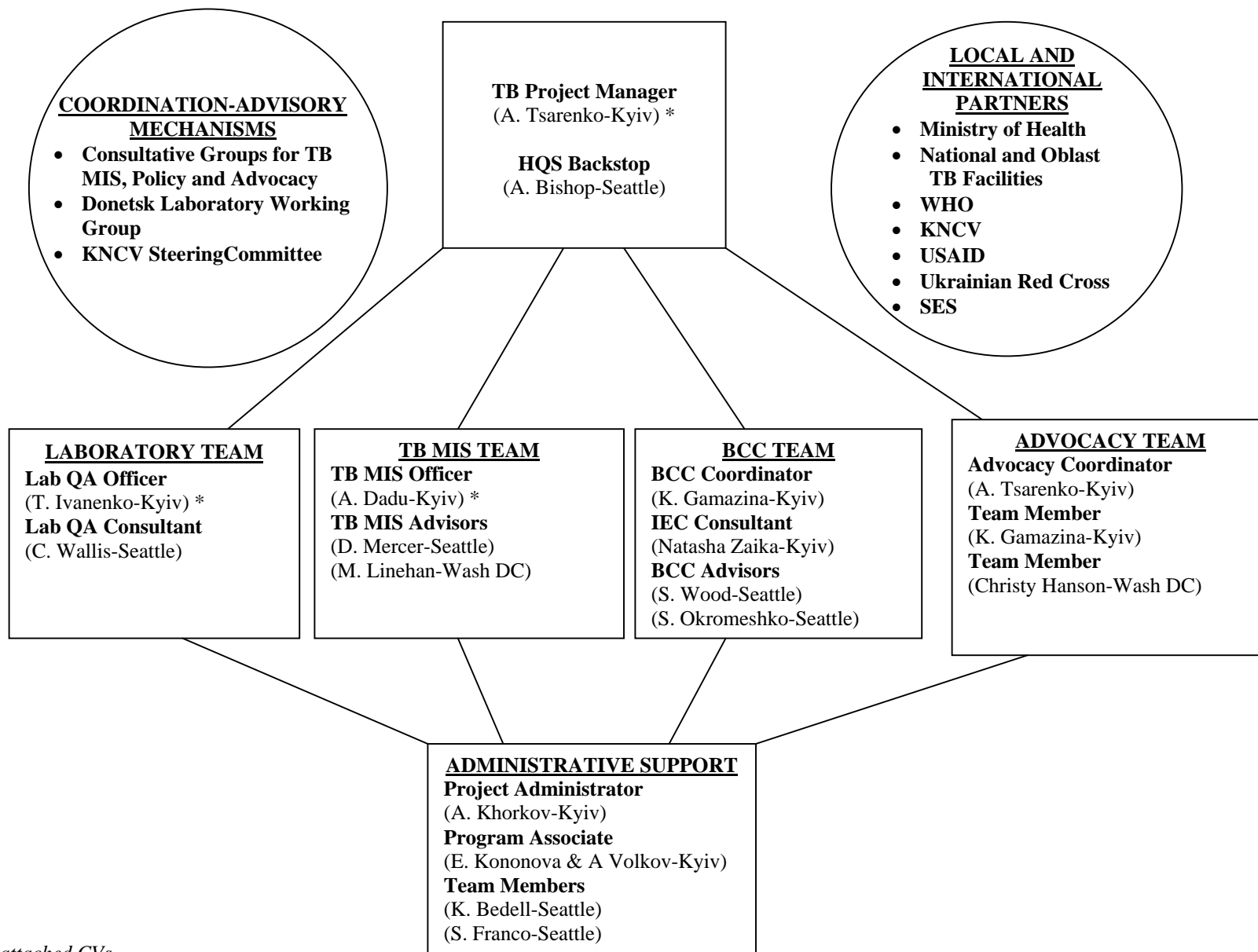
- 1. Budget Information:** PATH presented its cost share component costs by summary line item on the Standard Form 424A, but did not detail the level of effort or other costs in the detailed budget. The \$410,000 comprises staff time and travel for technical assistance in strengthening TB diagnostic capacity, staff time for supplementing HQS backstopping efforts, and in-kind contributions of KNCV for laboratory equipment and supplies. More detail can be supplied if needed. Due to funding constraints, the budget for proposed workshops remains very tight. By economizing on travel and per diem, we were able to add another international trip. The budget for consumables has been adjusted but it remains low for mass media. We chose not to increase this latter item as we hope that the World Bank TB project will cover the costs of TV and radio broadcasting.
- 2. Description of the PVO Applicant:** We have provided additional detail regarding transfer of skills to local partners in the DIP. Information in the Executive Summary should now be consistent with the main narrative.
- 3. Situation Analysis:** The information presented in this section was what was available. Our previous research did not explore in depth “belief systems” per se, but rather, focused on knowledge and practices related to seeking care for suspected TB. A letter was, in fact, provided from USAID/Kyiv.
- 4. Program Strategy and Interventions:** PATH’s role in advocacy and convening technical symposia was determined on the basis of a) consultation with local partners and stakeholders, and b) our past experience in these areas for other health topics, which has given us a considerable degree of local respect and credibility.
- 5. Organizational Development:** PATH will rely on a combination of on-the-job training, technical training workshops, symposia, and increased access to international literature to strengthen local capacity. Because there are several major international agencies providing assistance in TB control in Ukraine (WHO, KNCV, World Bank, EU), the overall effort to enhance local capacity must be viewed as collective. Therefore, we would argue that “reliance” on others for technical transfer is not a fair characterization of our planned approach. Rather, our efforts must be viewed as complementary and mutually reinforcing. It would be a mistake to have each agency providing technical assistance on all the same topics in parallel.
- 6. Performance Monitoring and Evaluation:** PATH has provided clear descriptions and justifications for the baseline (and follow-up) studies in the DIP, and the baseline results should help clarify why we considered this work essential. The indicators have been revised to ensure that all are measurable. All internationally recognized indicators for TB are included.
- 7. Management Plan:** A timeline describing activities by month is attached to the DIP.
- 8. Collaboration with USAID Field Missions:** A letter was provided at the time of application submission.

**Attachment C**

**Organizational Chart and CVs of Personnel Not Included  
in Original Application**

## PATH PROJECT: SUPPORT TO UKRAINE IN IMPLEMENTING ITS NATIONAL TB PROGRAM

## ORGANIZATIONAL CHART- Updated 4/30/04



\* See attached CVs.

## **ANDREI DADU**

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### **CAREER SUMMARY**

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Dr. Andrei Dadu is a management information systems program officer for PATH's tuberculosis control project being managed from its Kyiv, Ukraine office. He is working to improve the use of TB monitoring and surveillance data for better program planning in project sites. His technical skills are in epidemiological-based program monitoring and the design of software applications for electronic surveillance to improve case management and detection. Prior to joining PATH, Dr. Dadu worked as a medical epidemiologist and information technology specialist for the Centers for Disease Control in Kazakstan and for various national labs in Moldova providing technical guidance in epidemiologic-based program monitoring and evaluation, field research methods, health information systems, and quantitative data analysis. He received his medical degree from the University of Medicine and Pharmacy in Chisanau, Moldova.

### **PROFESSIONAL EXPERIENCE**

#### **Program for Appropriate Technology in Health (PATH), Kyiv, Ukraine, October 2003 to present** Program Officer, MIS

Serve as program officer for three-year, USAID-funded project "Support to Ukraine in Implementing Its National TB Program" being implemented in Donetska Oblast and Kyiv City. Responsibilities include evaluating existing TB information and surveillance systems, data policies, recent reforms and current practices to ensure they support DOTS, and working with project partners to strengthen model processes for institutionalizing effective information systems that support case detection and tracking. Develop technical tools that can be applied in multiple levels of the health system, including assessment instruments, training modules, manuals, and reports.

#### **Centers for Disease Control and Prevention, Central Asia Project Office, Division of International Health/Epidemiological Programs Office, September 2000 – September 2003**

##### Medical Epidemiologist – IT Specialist

Monitored the TB surveillance system for decision-making for TB control and prevention within the Central Asian Republic's Ministry of Health (MOH). Developed and introduced an information sharing system for CDC/CAP and CAR MOH officials. Provided general surveillance support and evaluation for HIV/AIDS, viral hepatitis, sexual transmitted infections, and special pathogens. Established policies and modified MOH recommendations on TB and other infection disease measures. Provided training on Epi-Info for pilot site in CAR as well as managed and maintained the CDC/CAP and CAR/MOH computer operations.

#### **WHO Regional Office for Europe, CDS-TUB, January 2003**

##### Consultant

Assessed DOTS implementation and TB surveillance in Moldova.

**National Center for Scientific and Applied Preventive Medicine, Department of Extremely Dangerous Diseases, Chisinau, Moldova, June 1999 – August 2000**

Medical Epidemiologist

Provided epidemiological surveillance of acute intestinal diseases and cholera; implemented the National Electronic Surveillance System for Infectious and Parasitogenic Diseases, a joint project of the MOH, Health, UNICEF, and the Soros Foundation; implemented the National Electronic System for Nutritional Surveillance, a joint project of the MOH and UNICEF.

**National Center for Scientific and Applied Preventive Medicine, Laboratory of Epidemiology of Viral Hepatitis, Chisinau, Moldova, November 1997 – December 1999**

Junior Laboratory Specialist

Advised on epidemiological features of nosocomial transmission of viral hepatitis. Performed lab diagnostics and ongoing lab work. Participated in retrospective cohort study "The risk factors of HEV infection among persons who work in close contact with livestock," a collaborative project between the Hepatitis Branch of the CDC and the MOH of Moldova.

**Chisinau City Hospital "Sacred Arhanghel Mihail," Purulent Division of Surgical Department #2, Chisinau, Moldova, July 1995 – September 1998**

Medical Assistant

Assisted with surgeries and daily drug management for surgery patients.

**National Oncology Institute, Chemotherapy Department # 3, Chisinau, Moldova, March – June 1995**

Medical Assistant

Assisted with surgeries and daily drug management for oncology patients.

## EDUCATION

Preventive Medicine Residency. Medical epidemiologist. National Center for Scientific and Applied Preventive Medicine, Chisinau, Moldova, 1999

M.D. Doctor-hygienist, epidemiologist, State University of Medicine and Pharmacy "N. Testemitsanu", Chisinau, Moldova, 1998

Other Training:

National Center for Scientific and Applied Preventive Medicine, Chisinau, Training Course "Informatics--basis in epidemiological surveillance," October 1999

Centers for Disease Control and Prevention, Division of Reproductive Health, Workshop on epidemiology of reproductive health, July 2000

Emory University Rolling School of Public Health and Centers for Disease Control and Prevention, Atlanta, GA, USA, a course for teachers of epidemiologic computing "Epi Info 2000 for Windows," March 2001

WHO Regional Office for Europe and KNCV, Warsaw, Poland, Workshop "Regional training in tuberculosis control program management," October 2001

Emory University Rolling School of Public Health and Centers for Disease Control and Prevention, Atlanta, GA, USA, "International course in applied epidemiology," September – October 2002

## LANGUAGES

Ukrainian, Russian, English, Romanian – excellent. French – good.

## PUBLICATIONS

1. N. Merciu, O. Margina, A. Dadu, N. Matragun. Epidemiological Features of Congenital Anomalies – Materials of a scientific conference, XXXV<sup>th</sup> Anniversary of Department of Preventive Medicine of UMPH “N.Testemitsanu”, Chisinau, 1998, pp. 238.
2. A. Dadu, G. Berlizhanova, V. Lavrentieva, K. Baymukhanova, K. Miskinis, M. Favorov. Manual on TB Electronic Surveillance and Case Management, Almaty, 2000, 300 pages.
3. T. Kalashnikova, A. Cooper, T. Kuchiuk, A. Jumagulova, A. Dadu, J. Drobeniuc, M. Favorov. Manual on Quality Control in Infectious Disease Laboratory, Essential Component for Health Improvement, Almaty, 2001, 180 pages.
4. J. Drobeniuc, M. Favorov, C. Shapiro, B. Bell, E. Mast, A. Dadu, D. Culver, P. Larovoi, B. Robertson, H. Margolis – Hepatitis E virus antibody prevalence among persons who work with swine; Journal of Infectious Disease, 2001; 184:1594-7.
5. L. Alikova, A. Jumagulova, A. Dadu, M. Favorov. Outbreak of waterborne acute intestinal disease in Temirtau, Kazakhstan – TEPHINET Second International Conference, Madrid, Spain. June 2002.
6. H. Sandhu, P. Nsubuga, A. Dadu, Z. Doskaliev, G. Rakishev, J. Mendlein, I. Aitmagambetova, G. Tsog, M. Favorov. E. Maes, M. White. Tuberculosis Treatment Outcomes Among Ex-prisoners – Kazakhstan, 2000 – 52nd Annual Epidemic Intelligence Service (EIS) Conference, Atlanta, GA, USA. April 2003.
7. G. Muratbayeva, A. Dadu, T. Solomatina, G. Abdrahmanova, N. Kovtunencko, T. Chaklikov, M. Favorov. Risk factors for HIV infection among Kazakh intravenous drug users. – Central Asia conference on HIV. Karakol, Kyrgyzstan. July 2002.
8. M. Favorov, A. Dadu, R. Usmanov. Analysis of Viral hepatitis epidemiological situation in Kyrgyzstan based on VH sentinel surveillance system – National conference on Viral Hepatitis, Bushkek, Kyrgyzstan, February 2001.
9. A. Dadu, K. Baimuhanova, I. Aytmagambetova, G. Tsogt, M. Favorov. Implementation of Tuberculosis Epidemiological Surveillance and Case Management (ESCM) System in Kazakhstan – Introduction to the Tuberculosis Prevention and Control based on WHO/DOTS strategy, Central Asia Regional Conference, Tashkent. September 2002.
10. A. Dadu, H. Sandhu, E. Maes, M. Favorov. Assessment of National Tuberculosis Surveillance System of Kazakhstan – Introduction to the Tuberculosis Prevention and Control based on WHO/DOTS strategy, Central Asia Regional Conference, Tashkent. September 2002.
11. H. Sandhu, A. Dadu, P. Nsubuga, E. Maes, M. Favorov. Gender and Other Factors Affecting Treatment Outcome of New Pulmonary Tuberculosis Patients, Kazakhstan, 2000 – Introduction to the Tuberculosis Prevention and Control based on WHO/DOTS strategy, Central Asia Regional Conference, Tashkent. September 2002.
12. F. Iskakova, A. Dadu, T. Muminov, M. Favorov. Characteristics of TB mortality in Pavlodar and Almaty oblasts, Kazakhstan – Conference on public health in Central Asia, Chervak, Ukbekistan. June 2003.
13. A. Dadu, M. Favorov. DOTS investment in life-saving of TB patients in Kazakhstan – Conference on public health in Central Asia, Chervak, Ukbekistan. June 2003.

## **TAMARA IVANENKO**

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### **CAREER SUMMARY**

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Dr. Tamara Ivanenko is a program officer for PATH's tuberculosis control project being managed from its Kyiv, Ukraine office. She manages the laboratory strengthening component of the project, particularly focusing on introducing direct smear microscopy quality control systems at the pilot laboratory facilities and providing guidelines for quality control of culture and identification tests for TB. Dr. Ivanenko has over sixteen years experience improving clinical laboratory practices for public health facilities in Ukraine. She received her medical degree from Kyiv State Medical Institute.

### **PROFESSIONAL EXPERIENCE**

#### **Program for Appropriate Technology in Health (PATH), Office in Kyiv, Ukraine, October 2003 to present**

##### Program Officer, Laboratory Quality Control

Serve as program officer for three-year, USAID-funded project "Support to Ukraine in Implementing Its National TB Program" being implemented in Donetska Oblast and Kyiv City. Assess existing quality assurance procedures in TB dispensaries and develop strategies for strengthening TB diagnostic capacity; assist in developing and introducing a quality assurance program to improve the efficiency and reliability of Acid-fast bacilli smear microscopy; provide training to lab personnel and ongoing monitoring and technical assistance to laboratories to ensure adherence to quality assurance protocols.

#### **Kyiv Central Clinical Hospital, Kyiv Center for Laboratory Diagnostics (KCLD), December 1999 – October 2003**

##### Senior Quality Control Specialist in Laboratory Diagnostics

Developed the quality control program for laboratory diagnostics for the Kyiv Health Administration including providing ongoing training in quality control systems and procedures to hospital, clinical, and diagnostics labs in Kyiv City. As a member of the Lab Accreditation Board of the Kyiv City Health Administration, participated in the review of various labs for certification approval. Conducted trainings on quality control for chiefs of labs in Kyiv City. Collected and analyzed data on quality control from all Kyiv labs annually and conducted conference to present results. Supported the development of internal quality control routine programs within the labs

#### **Kyiv Central Clinical Hospital, Kyiv Center for Urology, Kyiv, Ukraine, January 1996-November 1999**

##### Head of Diagnostics Laboratory

Managed the lab services as a round-the-clock emergency laboratory. Carried out lab diagnostics in biochemistry, TB, clinical testing, cytology, and hematology. Provided ongoing training of staff. Introduced routine QC procedures. Organized and controlled the procurement of supplies.



**Zhytomir City Hospital # 2, Outpatient Clinic, Diagnostics Laboratory, January 1990 – September 1991 and June 1993 - December 1995**

Head of Diagnostics Laboratory

Organized overall lab services. Provided lab diagnostics in biochemistry, TB, clinical tests, cytology, and hematology. Trained staff. Introduced routine QC procedures

**Kyiv Academy of Postgraduate Study, Department of Clinical Laboratory Diagnostics, Kyiv, Ukraine, September 1991 - June 1993**

Clinical Residency in Laboratory Diagnostics

**Zhytomyr Oblast Sanitary Epidemiological Station, Hygiene Department, September 1987 - December 1989**

Physician

Accessed and conducted analyses of municipal settlements from a public health/ hygiene prospective. Wrote reports to the oblast health administration on the results of analyses. Participated in oblast multidisciplinary commission on the assessment of quality and hygiene standards of water supply and sewage systems.

**Zhytomyr Community College, 1988 - 1990**

Teacher (courses in hygiene, disease surveillance, and public health)

## EDUCATION

M.D., Epidemiology/Surveillance, Hygiene, Public Health, Kyiv State Medical Institute, Kyiv, Ukraine, 2001  
Post graduate courses in clinical laboratory diagnostics, Kyiv Academy of Postgraduate Study, Department of Clinical Laboratory Diagnostics, Kyiv, Ukraine, 1996-2001  
Clinical Residency in Laboratory Diagnostics Diploma, Kyiv Academy of Postgraduate Study, Department of Clinical Laboratory Diagnostics, Kyiv, Ukraine, June 1993

## LANGUAGES

Ukrainian and Russian – excellent. English – fair.

## PUBLICATIONS

1. Lipkan G., Gytter Z., Kamenetska T., Ivanenko T. Standardization of the technique of fibrinolytic blood activity. – Proc. Natl Conf. on Hematology, Odessa, 1992.
2. Lipkan G., Gytter Z., Kamenetska T., Ivanenko T. Role of tromboplastic tissue activity in the assessment of the influence of physiologically active substances on the homeostasis. Proc 3rd Ukrainian Conference on Medical Biology. Kyiv, 1992.
3. Lipkan G., Gytter Z., Kamenetska T., Ivanenko T. Methodological recommendations (guidelines) "Urine Laboratory Examination". Kyiv, 1992.
4. Lipkan G., Gytter Z., Kamenetska T., Ivanenko T. Methodological recommendations (guidelines) "Cytological examination in the obstetric and gynecological practice". Kyiv, 1992.
5. Kogan B., Ivanenko T. New approaches in the diagnosis and treatment of trichomoniasis. - Drugs of Ukraine, 1999, #10/11, p. 25.
6. Kogan B., Ivanenko T., Barabanchik T. About diagnosis of trichomoniasis. Proc. Natl Conf on STD. Odessa, 2000.

## **Attachment D**

### **Timeline**

### Support to Ukraine in Implementing Its National TB Control Program

#### Project Timeline

[illegible]

**Support to Ukraine in Implementing Its National TB Control Program  
Project Timeline**

Objectives and Activities	Year 1												Year 2												Year 3											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep
2.1.10. Conduct trainings on QC of smear microscopy in Donetsk City																																				
2.2. Develop guidelines and introduce QC for culture and identification tests for MTB																																				
2.2.1. Prepare and publish methodologic recommendations for QC of culture tests and tests for sensitivity to TB drugs																																				
2.2.2. Develop training curriculum on QC for culture tests and tests for sensitivity to TB drugs (content, schedule, participants)																																				
2.2.3. Conduct training on QC for culture tests and tests for sensitivity to TB drugs in Donetsk City (Mariupol & Gorlovka)																																				
2.3. Strengthen DST + MDR monitoring																																				
2.3.1. Develop training curriculum for operators on application software to record MDR TB in laboratories (content, schedule, participants)																																				
2.3.2. Introduce EMIS for MDR TB in Donetska Oblast TB Dispensary lab																																				
2.3.3. Train coordinators in use of software to record MDR TB in laboratories																																				
2.3.4. Monitor application (field assessment visits, collection and analysis of feedback information)																																				
2.3.5. Provide technical support for use of software to record MDR TB																																				
2.4. Evaluation of new TB tests																																				
2.4.1. Investigate possible linkages with FIND and other international TB diagnostic development groups																																				
2.4.2. If possible, identify test(s) with potential applicability in Ukraine																																				
2.4.3. Evaluate test to assess appropriateness, acceptability, and efficiency																																				
2.5. Dissemination of results																																				
2.5.1. Publish results in professional journals																																				
2.5.2. Arrange meetings with partners on QC of laboratory TB diagnosis																																				
2.5.3. Arrange for external independent assessment of QC system of laboratory TB diagnosis																																				
Component 3: Improve use of TB monitoring and surveillance data																																				
3.1. Evaluate and revise data recording and reporting forms																																				
3.1.1. Convene TB MIS Discussion Group to evaluate and revise recording and reporting forms in collaboration with stakeholders																																				
3.1.2. Test and refine recording and reporting forms and guidelines (based on feedback from TB partners from different levels)																																				
3.1.3. Print Form TB-01																																				
3.1.4. Design training on recording and reporting form (schedule, participants & content)																																				
3.1.5. Provide training on use of new data reporting and recording for project partners in Donetska Oblast																																				
3.1.6. Train project partners in Kyiv, Sevastopol, Volyn, and Kharkiv Oblasts on new data reporting and recording form																																				
3.2. Design and implement TB EMIS																																				
3.2.1 Design electronic application for TB MIS																																				
3.2.2 Field test electronic application of TB MIS																																				
3.2.3. Establish E-mail service and connect field electronic data collection point to Ukraine TB Network (for Donetska Oblast)																																				

**Support to Ukraine in Implementing Its National TB Control Program  
Project Timeline**

Objectives and Activities	Year 1												Year 2												Year 3												
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	
3.2.4. Design training on TB EMIS for operators and data analysts (schedule, participants & content)																																					
3.2.5. Train data entry staff from Donetsk																																					
3.2.6. Train data entry staff from Kyiv																																					
3.2.7. Train data analysts in Donetsk																																					
3.2.8. Train data analysts in Kyiv																																					
3.2.9. Participate in WHO training on TB surveillance in Budapest																																					
3.2.10. Monitor TB MIS implementation																																					
3.3. Develop tools for routine monitoring of diagnostic efficiency																																					
3.3.1. Develop tools in collaboration with local laboratory and MIS partners																																					
3.3.2. Evaluate, refine, and introduce tools																																					
3.3.3. Conduct small study to assess screening efficiency of x-ray																																					
3.4. Support institutionalization of TB MIS to assess drug susceptibility																																					
3.4.2. Ongoing monitoring of progress towards institutionalization																																					
3.5. Develop and introduce model approaches for information system integration between TB and HIV programs																																					
3.5.1. Convene meetings with HIV and TB authorities to develop plan of action																																					
3.5.2. Assess status of HIV data management and mechanisms for linking to TB																																					
3.5.3. Pilot test HIV/TB data integration approach in selected sites																																					
3.6. Integrate pharmaceutical management into the TB management information system																																					
3.6.1. Monitor effectiveness of integration and use of data for program planning																																					
3.7. Dissemination of results																																					
3.7.1. Write journal article on MIS project results and submit for publication																																					
3.7.2. Meeting with stakeholders																																					
Component 4: · Reduce diagnostic delay, increase case detection, and improve adherence to TB treatment																																					
4.1. Increase awareness and understanding of TB transmission, symptoms, treatment and cure among the general public and specific at-risk populations																																					
4.1.1. Develop baseline research protocol and questionnaires; obtain IRB approval																																					
4.1.2. Create telephone hotline in Donetsk																																					
4.1.3. Prepare tender for research firm and hire firm																																					
4.1.4. Conduct baseline formative research (KAP survey, focus groups)																																					
4.1.5. Analyze findings and develop BCC strategy																																					
4.1.6. Conduct IEC materials development training workshops																																					
4.1.7. Revise existing IEC materials; develop and pretest new versions																																					
4.1.8. Print/reprint public awareness IEC materials																																					
4.1.9. Collaborate with partners to disseminate IEC materials (display posters, distribute brochures, etc.)																																					
4.1.10. Develop TV and radio spots																																					
4.1.11. Relaunch media campaign in Donetsk																																					
4.1.12. Initiate media campaign in Kyiv																																					
4.1.13. Evaluate IEC materials & media campaign																																					
4.1.14. Organize public awareness events for World TB Day																																					
4.1.15. Monitor BCC indicators																																					
4.1.16. Conduct final formative research (KAP survey & focus groups)																																					
4.1.17. Analyze final formative research results & write reports																																					

**Support to Ukraine in Implementing Its National TB Control Program  
Project Timeline**

Objectives and Activities	Year 1												Year 2												Year 3												
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	
4.2. Improve health-seeking behavior and treatment adherence among people diagnosed with TB																																					
4.2.1. Conduct TB patient baseline exit survey in Donetsk & Kyiv																																					
4.2.2. Revise existing IEC materials for patients and families, develop and and pretest new versions																																					
4.2.3. Print/reprint TB patient and family education materials																																					
4.2.4. Collaborate with partners to disseminate materials																																					
4.2.5. Design study to assess factors affecting patient adherence to treatment in Donetska Oblast																																					
4.2.6. Train interviewers																																					
4.2.7. Collect data																																					
4.2.8. Data analysis and interpretation stage																																					
4.2.9. Conduct midterm exit survey in Donetsk & Kyiv																																					
4.2.10. Conduct final TB patient exit survey in Donetsk and Kyiv																																					
5. Improve provider practices																																					
5.1. Finalize training curriculum on interpersonal communication & counseling																																					
5.2. Train TB providers in IPC/C and VCT																																					
5.3. Work with Donetsk Medical University to incorporate IPC/C curriculum into training curricula for TB doctors																																					
5.4. Evaluate training activities																																					

**Attachment E**

**USAID TB Indicators**

## USAID TB Indicators

This is the first year that Detailed Implementation Plans (DIP) will be developed for tuberculosis prevention and control activities as part of the Child Survival and Health Grants Program. Traditionally, the Rapid Catch and the KPC Survey have played an important role in the monitoring and evaluation process of these grants. However in TB prevention and control the primary target population is infectious adults, therefore, the current structure of the Rapid Catch and the available KPC Survey modules are not appropriate for TB programs.

Listed below is a set of indicators to be used in the development of DIPs and the monitoring and evaluation of TB programs funded as part of the FY03 cycle. More comprehensive indicator guidance will be available in 2004. Please note the following guidance based on the composition of the proposal.

### Complete TB proposals

- Programs that are 100 percent tuberculosis in focus should not conduct the Rapid Catch or the KPC Survey at this time.
- The program should use the indicators under Sections I and II.
- If the proposal includes an IEC component that educates the public on the general signs and symptoms of TB the indicators in Section III should be collected as well.

### Partial TB proposals

- Proposals that are not 100 percent in focus will need to conduct the Rapid Catch and the appropriate KPC to address the non-TB aspects of the program.
- Given that the Rapid Catch will be conducted the indicators under Section III should be collected.
- The program should use the indicators under Sections I and II.

The indicators under Sections I and II should be collected as part of a routine National TB Program (NTP). Programs that are not directly addressing these issues will need to coordinate with the appropriate counterparts at the NTP to obtain this data.



## USAID TB Indicators

Indicator	Calculation	Data Source	Level	Periodicity
<b>Section I</b>				
Percentage of new smear-positive cases who were successfully treated (Treatment success rate)*	<i>Numerator:</i> Number of new smear positive cases who were cured plus the number of new smear-positive cases who completed treatment <i>Denominator:</i> Total number of new smear-positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual
Case detection rate  (Per WHO formula, and adjusted for HIV)	<i>Numerator:</i> Number new smear-positive registered TB cases <i>Denominator:</i> Estimated number of new smear-positive TB cases	Quarterly reports on new cases and relapses (Form TB-07) and WHO estimates	National Province	Annual
<b>Section II</b>				
<b>Cohort Indicators</b>				
Percentage of new smear-positive cases cured (Cure rate)	<i>Numerator:</i> Number of new smear positive cases who were cured <i>Denominator:</i> Total number of new smear - positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual
Percentage of new smear-positive cases who completed treatment (Completion rate)	<i>Numerator:</i> Number of new smear-positive cases which completed treatment but does not meet the criteria for cure or failure <i>Denominator:</i> Total number of new smear-positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual
Percentage of new smear-positive cases who died (Death Rate)	<i>Numerator:</i> Number of new smear positive cases who died during treatment <i>Denominator:</i> Total number of new smear - positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual
Percentage of new smear-positive cases who were failures (Failure rate)	<i>Numerator:</i> Number of new smear positive cases who remain or become smear positive again at five months or more of treatment <i>Denominator:</i> Total number of cases new smear-positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual

## Attachment E

Indicator	Calculation	Data Source	Level	Periodicity
Percentage of new smear-positive cases who defaulted (Default rate)	<i>Numerator:</i> Number of new smear positive cases who defaulted <i>Denominator:</i> Total number of new smear-positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual
Percentage of new pulmonary smear positive cases who were transferred to another district (Transfer-out rate)	<i>Numerator:</i> Number of smear-positive cases who were transferred to another health facility outside the district with a proper referral/transfer slip <i>Denominator:</i> Number of smear positive cases registered	Quarterly report on treatment results (Form TB-08)	National Province District	Quarterly Annual
<b>Section III</b>				
Proportion of population who were aware of at least two symptoms of TB	Numerator: Number of people which correctly identified at least two symptoms of TB Denominator: Total number of people surveyed	Population Survey	National Province District	1-5 years
Proportion of population who know that TB is a curable disease	Numerator: Number of people who correctly answered that TB is a curable disease Denominator: Total number of people surveyed	Population Survey	National Province District	1-5 years

## **Attachment F**

### **Memorandum of Understanding with Project Partners**

**MEMORANDUM OF UNDERSTANDING**  
between  
**PROGRAM FOR APPROPRIATE TECHNOLOGY IN HEALTH (PATH)**  
and  
**HEALTH DEPARTMENT OF**  
**DONETSKA OBLAST STATE ADMINISTRATION**

**RECITALS**

Program for Appropriate Technology in Health (PATH) is a non-profit, non-governmental organization with its principal place of business at 1455 NW Leary Way, Seattle, Washington, USA, and a Ukraine country program office (located at 18/2, Kruglouniversytetska Street, Apt. 2, 01024 Kyiv, Ukraine), whose mission is to improve the health of people around the world by advancing technologies, strengthening systems, and encouraging healthy behaviours; and

Health Department of the Donetska Oblast State Administration ("Partner") located at Pushkina Boulevard 34, Donetsk, 83105, Ukraine, jointly the "Parties."

The Parties agree to cooperate in carrying out the project "Support to Ukraine in Implementing its National TB Program" ("Project") in the city of Kyiv in view of their common interests and activities, related to the prevention and control of tuberculosis in Ukraine.

Since 1994 PATH has been a partner in public health with the Ministry of Health of Ukraine (MOH) and regional authorities to implement several projects to improve the health of all citizens of Ukraine. Under a Memorandum of Partnership signed in 2001, PATH has provided assistance in the control of diphtheria, provided training in the HIV/AIDS prevention and management, provided technical assistance to improve breast cancer services, strengthened health information systems for vaccine-preventable diseases, as well as other initiatives.

The Donetska Oblast State Administration pays great attention to TB prevention and control. From 2002-2004 PATH cooperated with the World Health Organization (WHO), Donetska Oblast TB Clinical Hospital and Health Center to successfully implement a pilot project to introduce the WHO-recommended TB control strategy DOTS (Directly Observed Therapy, Short-Course), adapted for Ukraine, in Donetska Oblast.

In October 2003, PATH initiated the USAID-funded, three-year project "Support to Ukraine in Implementing its National TB Program".

**I. PURPOSE**

The purpose of this Memorandum of Understanding (MOU) is to identify the areas for participation and the responsibilities of the Parties within the framework of the Project.

While this MOU captures the mutual understanding of the Parties at the time of signing, both Parties recognize that this MOU is not a legally binding agreement. PATH and Partner intend that the Parties will enter into an appropriate binding agreement at a later date if the Parties decide to further collaborate.

## **II. PROJECT OBJECTIVE**

The primary objective of the Project is to improve tuberculosis case detection and management in selected locations through the implementation of the WHO-recommended strategy, DOTS. This will be done by facilitating improvement of TB health care for Ukraine's population through supporting and supplementing activities of other national and international partners in Kyiv City, Donetsk Oblast, and other regions of Ukraine in which the DOTS strategy is being introduced.

## **III. ROLES**

### **A. PATH shall:**

1. Establish and facilitate the work of a Policy and Advocacy Consulting Group to identify and prioritize necessary revisions or additions to improve legislative and regulatory bases in TB control. Facilitate quarterly meetings of the Consulting Group to develop proposals for Verkhovna Rada of Ukraine, the Cabinet of Ministers, and the MOH regarding control of the TB epidemic;
2. Support advancing skills and training of health providers, in particular:
  - Train over 100 phthisiatricians in Donetsk Oblast on effective communication with and counselling of TB patients;
  - Conduct trainings for rayon and city phthisiatricians regarding the use of recording and reporting forms (which comply with WHO standards and Ukraine's MOH requirements) for registering, managing and reporting TB cases;
  - Conduct trainings for TB specialists in the use of new software for the TB management information system (MIS);
  - Train (at international workshops) leading TB specialists as trainers to conduct workshops on introducing WHO recommended approaches to TB surveillance and the principles of epidemiological analysis;
  - Conduct trainings for over 200 lab specialists on laboratory quality control for improved TB diagnosis;
  - Train (at a training in Lithuania) 3 bacteriologists as trainers to conduct workshops on microbiological TB diagnosis ;
3. Prepare TV and radio spots and develop information, education, and communication (IEC) campaigns pertinent to motivating the population to seek timely medical advice if symptoms of TB occur, and to forward those materials free-of-charge to the Partner for broadcasting through local TV channels and radio stations;
4. Develop and print IEC materials on TB for patients and their families, the general public, as well as for populations at risk (including HIV/AIDS patients). PATH will also forward those materials free-of-charge to the Partner for distribution;
5. Develop a lab quality control system for direct smear microscopy, culture tests for *Mycobacterium tuberculosis*, and drug sensitivity testing in cooperation with leading Ukrainian specialists and researchers and PATH consultants. Introduce this system in laboratories in Donetsk Oblast, and forward the methodological recommendations free-of-charge to the Partner for use;

6. Cooperate with respective specialists in Donetska Oblast to develop and revise the TB MIS recording and reporting forms to register, manage, and report TB cases to comply with WHO standards and MOH requirements. Instructions for use of the forms and the electronic version of the TB MIS will be developed as well;
7. Develop a demonstration version of the software "Electronic Version of TB MIS", and field test it in TB health facilities in Donetsk Oblast;
8. Facilitate conducting epidemiological analyses of TB data obtained with the electronic version of TB MIS in accordance with international standards, interpretation, and publication;
9. Create an All-Ukrainian Internet TB Forum to exchange TB news and articles between experts and agencies involved in TB. This Forum will include all members from the Partner who are interested in being on the mailing list;
10. Include, as appropriate, laboratory and other TB experts in PATH-sponsored symposia, working groups, and/or training seminars.

**B. Partner shall:**

1. Promote and support the Project's goals and Project Implementation Plan in Donetska Oblast;
2. Support PATH in arranging monitoring visits to health care facilities and laboratories within the general/primary health care system and for TB services as outlined in the Project Plan;
3. Provide PATH with a plan of the activities of the TB Control Program in Donetska Oblast for coordination of activities;
4. Facilitate introduction of software for TB control in Donetska Oblast that records TB patients through assessment and formulation of requirements for the TB MIS;
5. By September 2006, provide a copy of the electronic database of the TB MIS in order for PATH to develop an electronic appendix and analyze key indicators of project performance efficiency;
6. Ensure that printed IEC materials developed and provided by PATH are distributed among health care facilities in Donetska Oblast. Facilitate broadcasting of radio and TV spots developed and provided by PATH through local radio stations and TV channels as social advertising;
7. Issue an order to implement the project in Donetsk Oblast;
8. Appoint a Project Coordinator and *Project Component's Supervisors* in Donetska Oblast to implement the following project components:
  - Improvement of regulatory and legislative bases;
  - Introduction of a laboratory quality control system for TB diagnosis;
  - Introduction of the TB MIS;
  - Implementation of a behavior change communications strategy;
9. Request that the Chief Laboratory Specialist of the Health Department ensure participation by general health care system laboratories in inter-laboratory quality control of sputum microscopy;
10. Request that the Chief Doctor of Donetska Oblast TB Hospital:
  - Appoint a specialist to organize and conduct inter-laboratory quality control of smear microscopy and culture tests in Donetska Oblast TB facilities;
  - Ensure participation of TB Dispensary laboratories in inter-laboratory quality control of culture tests for TB;

- Appoint specialists in Donetsk Oblast TB facilities (one operator and one analyst) to be responsible for coordination and introduction of electronic registration and management of TB cases.
11. Provide PATH with information about laboratory equipment and consumables that have been provided to clinical and bacteriological laboratories in the general health care system and TB facilities of Donetsk Oblast (for coordination purposes);
  12. Provide PATH with information about the office equipment, software and email that is available for introduction of a system for electronic surveillance and management of TB cases in TB facilities and rayon/city hospitals in Donetsk Oblast (for coordination purposes).

**C. Both Parties jointly shall:**

1. Coordinate their activities related to the Project and the Donetsk Oblast TB Control Program, inform each other about progress, provide each other non-confidential documents pertinent to project implementation, and participate in annual meetings of the Parties;
2. Conduct complementary activities within the framework of the Project Implementation Plan and the Donetsk Oblast TB Control Program to ensure most effective use of budgets of both Parties. Conduct joint activities on conditions of joint funding (as agreed by both Parties);
3. Unite efforts in an attempt to expand the experience from implementing the Project in Donetsk Oblast to other oblasts of Ukraine. This would include introducing an efficient MIS within the framework of the Donetsk Oblast TB Control Program to increase surveillance and management of TB cases, and planning and assessment of TB control measures.

**IV. FUNDING**

Each Party shall bear its respective costs related to implementation of the Project and the Donetsk Oblast TB Control Program in accordance with approved budgets.

**V. INTELLECTUAL PROPERTY**

- A. Nothing in this MOU shall be construed as granting either party any right, title, license, or other interest in any patents, trademarks, copyrights, or other intellectual property of the other party.
- B. Any publications resulting from the work performed under this MOU will be subject to review by both Parties at least thirty (30) days before dissemination or other publication, and shall acknowledge the contributions of both Parties, as appropriate, after approval by both Parties of the form the acknowledgement. The publishing party shall provide to each party a minimum of three (3) copies of each publication relating to this MOU at least 30 days prior to the submission of any publication or presentation from work arising from this MOU. The publishing party agrees to give serious consideration to any comments provided by the Parties regarding such publications. The publishing party shall provide three (3) copies of the final version of the publication to the each party.

## **VI. DURATION, AMENDMENT, AND DISPUTE RESOLUTION**

- A. Nothing in this MOU is intended or shall be deemed to constitute a partnership, agency, employer-employee, or joint-venture relationship between the Parties.
- B. This MOU is nonexclusive in nature and does not affect either party's ability to enter into agreements or affiliations with other Parties.
- C. Any differing viewpoints or interpretations on how to put this MOU into effect, which influence the implementation of the Project, will be settled amicably by consultation between the Parties.

This Memorandum comes into effect starting on the last date of signature below, and shall stay effective until 30 September 2006 (project end date). The MOU may be extended as agreed in writing by both Parties. Each Party may cancel this MOU with notification of the other Party in writing.

IN WITNESS WHEREOF, the Parties hereby execute this MOU in duplicate (with English/Ukrainian translation) and acknowledge that they are authorized to execute same:

For PATH:

For Partner:

\_\_\_\_\_

\_\_\_\_\_

Name: Kateryna Gamazina, M.D.

Name: Name: Olexandr Anishchenko

Title: Deputy Country Program Leader

Title: Head

Date:\_\_\_\_\_

Date:\_\_\_\_\_



**МЕМОРАНДУМ ПРО ВЗАЄМОРОЗУМІННЯ**  
**між**  
**ПРОГРАМОЮ ОПТИМАЛЬНИХ ТЕХНОЛОГІЙ В ОХОРОНІ ЗДОРОВ'Я (PATH)**  
**та**  
**УПРАВЛІННЯМ ОХОРОНИ ЗДОРОВ'Я**  
**ДОНЕЦЬКОЇ ОБЛАСНОЇ ДЕРЖАВНОЇ АДМІНІСТРАЦІЇ**

**ЗАГАЛЬНІ ПОЛОЖЕННЯ**

Програма оптимальних технологій в охороні здоров'я (надалі - PATH) – неприбуткова неурядова організація, головний офіс якої розташований в місті Сіетл, штат Вашингтон, США, за адресою: 1455, NW Leary Way, Seattle, Washington, USA; Представництво PATH у Києві розташоване за адресою: вул. Круглоуніверситетська, 18/2, офіс 2, м. Київ, 01024. PATH, місією якої є покращання здоров'я людей в усьому світі за допомогою вдосконалення технологій, зміцнення системи охорони здоров'я та заохочення до здорового способу життя, і Управління охорони здоров'я Донецької обласної державної адміністрації (надалі - Управління), що розташоване за адресою: бульвар Пушкіна, 34, Донецьк, 83105, Україна, (надалі – Партнери) уклали цей Меморандум про взаєморозуміння – (надалі – Меморандум).

Партнери мають на меті співпрацювати стосовно реалізації проекту “Сприяння Україні щодо впровадження Національної програми боротьби із захворюванням на туберкульоз” (надалі – Проект) у Донецькій області, беручи до уваги спільність інтересів та завдань обох Партнерів в галузі протидії епідемії туберкульозу в Україні.

З 1994 р. PATH спільно з Міністерством охорони здоров'я України (надалі – МОЗ) та органами державної влади в регіонах реалізували низку актуальних проектів, метою яких було покращити здоров'я населення України. Відповідно до “Меморандуму про партнерство між PATH і МОЗ”, який був підписаний у 2001 р., PATH надала допомогу у боротьбі з епідемією дифтерії, провела тренінги щодо профілактики та протидії епідемії ВІЛ-інфекції/СНІДу, надала технічну допомогу задля покращення медичного обслуговування пацієнтів з раком молочної залози, зміцнення системи контролю за хворобами, яким можна запобігти за допомогою щеплень, та інші.

Управління охорони здоров'я Донецької обласної державної адміністрації приділяє велику увагу протидії епідемії туберкульозу. В області успішно впроваджується регіональна програма боротьби із захворюванням на туберкульоз. Починаючи з 2001 року, за підтримки Управління охорони здоров'я Донецької облдержадміністрації спільно з ВООЗ, обласною протитуберкульозною клінічною лікарнею і обласним центром здоров'я успішно реалізують пілотний проект з впровадження стратегії DOTS у Донецькій області.

З жовтня 2003 р. PATH розпочала підготовку до виконання трьохрічного проекту “Сприяння Україні щодо впровадження Національної програми боротьби із захворюванням на туберкульоз”, який фінансується Агентством з міжнародного розвитку США.

**I. НАМІРИ**

Мета цього Меморандуму про взаєморозуміння (надалі – Меморандум) – визначити участь і відповідальність Партнерів у рамках співпраці щодо впровадження вищезазначеного Проекту.

Хоча цей Меморандум свідчить про взаєморозуміння між Партнерами на момент підписання, обидва Партнери розуміють, що цей Меморандум не є юридичною угодою. РАТН і Управління можуть укласти юридичну угоду пізніше, якщо у цьому виникне потреба.

## **II. МЕТА ПРОЕКТУ**

Головна мета проекту - покращити виявлення і лікування хворих на туберкульоз в пілотних регіонах шляхом впровадження рекомендованої ВООЗ стратегії боротьби з туберкульозом DOTS. Це буде досягнуто завдяки сприяння удосконаленню протитуберкульозної допомоги населенню України шляхом підтримки та доповнення діяльності національних та міжнародних партнерів у місті Києві, Донецькій області та інших регіонах України, де впроваджується DOTS стратегія.

## **III. ЗОБОВ'ЯЗАННЯ ПАРТНЕРІВ**

### **1. РАТН бере на себе зобов'язання:**

1. Створити та сприяти роботі Консультативної групи з питань удосконалення законодавчої і нормативно-правової бази стосовно боротьби із захворюванням на туберкульоз. Забезпечити проведення щоквартальних зборів учасників Консультативної групи з метою розробки відповідних пропозицій для Верховної Ради України, Кабінету Міністрів та МОЗ щодо актуальних проблем протидії епідемії туберкульозу.
2. Надати допомогу щодо підвищення кваліфікації та навчання медичних працівників:
  - провести семінари для 100 лікарів-фтизіатрів з усіх районів області з питань ефективного спілкування та консультування хворих на туберкульоз;
  - навчити районних фтизіатрів використанню обліково-звітних форм, що відповідають стандартам ВООЗ і вимогам МОЗ, для реєстрації, ведення і звіту про випадки туберкульозу;
  - навчити відповідних співробітників протитуберкульозної служби обласного і районного рівня користуванню програмним забезпеченням для електронної/комп'ютерної системи управління інформацією протитуберкульозної програми;
  - підготувати (шляхом навчання на міжнародних тренінгах) з числа провідних фахівців фтизіатричної служби області викладачів/тренерів для проведення семінарів з питань впровадження рекомендованих ВООЗ методів епідеміологічного нагляду та принципів епідеміологічного аналізу;
  - провести тренінги для більше як 200 фахівців лабораторної служби області з питань контролю якості лабораторної діагностики туберкульозу;
  - підготувати (шляхом навчання на тренінгу в лабораторіях Литви) з числа провідних фахівців фтизіатричної служби 3 бактеріологів викладачів для проведення семінарів з мікробіологічної діагностики туберкульозу.
3. У рамках стратегії зміни поведінки, заохочення населення до своєчасного звернення по медичну допомогу у разі виникнення симптомів туберкульозу розробити інформаційну кампанію, виготовити телевізійні та радіоролики та передати їх безкоштовно Партнеру для трансляції на місцевих каналах телебачення і радіомовлення.
4. Розробити та виготовити друковані інформаційно-освітні матеріали щодо протидії епідемії туберкульозу для хворих на туберкульоз та їх сімей, широких верств населення, а

також для специфічних груп ризику (у тому числі для людей, що живуть з ВІЛ/СНІД), та надати їх безкоштовно Партнеру для розповсюдження.

5. Розробити спільно з провідними фахівцями і вченими України та консультантами РАТН систему контролю якості лабораторних досліджень методом прямої мікроскопії мазка мокротиння, забарвленого за Цілем-Нільсоном, і мікробіологічної діагностики туберкульозу, у тому числі тесту чутливості мікобактерії туберкульозу до протитуберкульозних препаратів, впровадити цю систему в лабораторіях Донецької області та надати методичні рекомендації безоплатно Партнеру для використання.
6. Співпрацювати з відповідними спеціалістами Донецької області у галузі розробки та вдосконалення обліково-звітних форм та електронної інформаційної системи для реєстрації, ведення і звіту про випадки туберкульозу та інструкції по їх застосуванню, що відповідають стандартам ВООЗ і вимогам МОЗ.
7. Розробити демонстраційну версію електронного програмного забезпечення “Електронна система управління інформацією протитуберкульозної програми”, апробувати її в закладах протитуберкульозної служби Донецької області.
8. Сприяти проведенню епідеміологічного аналізу згідно з міжнародними стандартами, інтерпретації та публікації отриманих даних про зареєстровані випадки туберкульозу.
9. Створити Всеукраїнський протитуберкульозний Інтернет-форум з метою обміну інформацією між фахівцями та зацікавленими організаціями за допомогою Інтернету з щотижневою розсилкою тематичних новин та статей. Включити до списку учасників усі структури Партнера, що виявлять бажання.
10. Залучати відповідних фахівців у галузі фтизіатрії та лабораторної діагностики до участі у симпозиумах, засіданнях робочих груп, тренінгах та семінарах, що фінансуються РАТН.

## **2. Управління бере на себе зобов’язання:**

1. Сприяти і підтримувати здійснення плану впровадження Проекту на території Донецької області.
2. Сприяти співробітникам РАТН у проведенні моніторингових візитів в лікувально-профілактичні заклади і лабораторії загально-лікувальної мережі і фтизіатричної служби області в рамках плану впровадження Проекту.
3. З метою координації заходів надати Партнеру план заходів, що здійснюватимуться в рамках обласної програми боротьби із захворюванням на туберкульоз.
4. Сприяти впровадженню у Донецькій області програмного забезпечення контролю і обліку хворих на туберкульоз шляхом оцінки та формулювання вимог до програмного забезпечення електронної системи управління інформацією протитуберкульозної програми.
5. Включно до вересня 2006 року дозволити РАТН користуватися електронною базою даних системи управління інформацією протитуберкульозної програми для розвитку електронного додатку та аналізу основних індикаторів ефективності впровадження Проекту.
6. Забезпечити розповсюдження інформаційно-освітніх друкованих матеріалів, розроблених та наданих РАТН, у лікувально-профілактичних закладах міста, та сприяти трансляції тематичних радіо- та відео роликів, розроблених та наданих РАТН, на місцевих каналах радіомовлення та телебачення на правах соціальної реклами.
7. Видати відповідний наказ Управління щодо впровадження Проекту в Донецькій області.
8. Призначити обласного координатора Проекту та кураторів впровадження компонентів Проекту: 1) удосконалення нормативно-правової бази; 2) впровадження системи

- контролю якості лабораторної діагностики туберкульозу; 3) інформаційна система управління протитуберкульозними заходами; 4) стратегія зміни поведінки;
9. Зобов'язати головного лаборанта Управління охорони здоров'я забезпечити участь лабораторій загально-лікувальної мережі в міжлабораторному контролі якості мікроскопії мазка мокротиння на кислотостійкі палички.
  10. Зобов'язати головного лікаря Донецької обласної туберкульозної лікарні: 1) Призначити відповідального за організацію и проведення міжлабораторного контролю якості мікроскопії мазка мокротиння та культурального дослідження в Донецькій області; 2) забезпечити участь лабораторій протитуберкульозних диспансерів у проведенні міжлабораторного контролю якості з культуральної діагностики туберкульозу; 3) визначити у фтизіатричних закладах області відповідальних за координацію і впровадження електронної інформаційної системи для реєстрації, ведення і звіту про випадки туберкульозу (одного оператора та одного аналітика).
  11. З метою координації заходів надати Партнеру інформацію про забезпечення лабораторним обладнанням і витратними матеріалами клініко-діагностичних та бактеріологічних лабораторій загально-лікувальної мережі та протитуберкульозних закладів Донецької області.
  12. З метою координації заходів надати Партнеру інформацію про забезпечення районних/міських протитуберкульозних диспансерів і тубкабінетів при районних/міських поліклініках/лікарнях Донецької області комплектом оргтехніки і офісного програмного забезпечення та електронною поштою, що необхідно для впровадження системи електронного нагляду і ведення хворих на туберкульоз.

### **3. Обидва Партнери беруть на себе зобов'язання:**

1. Координувати свої заходи в рамках вищезазначеного Проекту та обласної програми боротьби із захворюванням на туберкульоз, інформувати один одного про хід впровадження Проекту, надавати один одному документи стосовно реалізації Проекту, що не містять конфіденційної інформації, брати участь у щорічних засіданнях партнерів.
2. З метою найбільш ефективного використання бюджетних коштів Партнерів взаємодоповнювати протиепідемічні заходи в рамках реалізації планів впровадження Проекту та обласної програми боротьби із захворюванням на туберкульоз, проводити спільні заходи на умовах спільного фінансування (за обоюсторонньою згодою).
3. Партнери об'єднують зусилля щодо поширення досвіду реалізації Проекту у Донецькій області на інші області України та впровадження ефективної інформаційної системи в рамках обласної програми боротьби із захворюванням на туберкульоз із метою підвищення ефективності епідемічного нагляду і ведення випадків туберкульозу, планування, виконання й оцінки протиепідемічних заходів.

## **IV. ФІНАНСУВАННЯ**

Кожен Партнер нестиме відповідні витрати стосовно своєї діяльності щодо впровадження Проекту та міської програми боротьби із захворюванням на туберкульоз відповідно до затверджених кошторисів.

## **VI. ІНТЕЛЕКТУАЛЬНА ВЛАСНІСТЬ**

- A. Жодне положення цього Меморандуму не може бути витлумачене як надання іншій стороні будь-яких прав, ліцензій, або інших інтересів у будь-яких патентах, торговельних марках, права на передрук, або іншій інтелектуальній власності другої сторони.
- B. Будь-які публікації, що є результатом роботи, виконаної в рамках цього Меморандуму, підлягають перегляду обома Партнерами як мінімум за тридцять (30) днів до розповсюдження або іншого оприлюднення, та мають містити визнання внеску обох Партнерів після того, як обидва Партнери затвердять форму визнання. Партнер, що здійснює оприлюднення, має надати другій стороні як мінімум три (3) копії кожної публікації, що стосується роботи, виконаної в рамках цього Меморандуму, як мінімум за 30 днів до здачі будь-якої публікації або презентації роботи, що впливає з цього Меморандуму. Партнер, що здійснює публікацію, погоджується взяти до уваги будь-які коментарі, що їх надає інший Партнер стосовно даної публікації. Партнер, що здійснює публікацію, надасть три (3) копії кінцевої версії публікації іншому Партнеру.

## **VII. ТРИВАЛІСТЬ, ВНЕСЕННЯ ЗМІН І ВИРІШЕННЯ СУПЕРЕЧОК**

- A. Жодне положення цього Меморандуму не спрямоване на створення, і не може вважатися таким, що створює партнерські, агентські стосунки, стосунки між роботодавцем і робітником, або спільного підприємства між Партнерами.
- B. Цей Меморандум є не ексклюзивним за своєю природою та не має впливу на здатність будь-кого з Партнерів вступати в угоди або об'єднання з іншими сторонами.
- C. Будь-яка різниця у поглядах або інтерпретаціях стосовно запровадження цього Меморандуму, що впливає на здійснення Проекту, вирішуватиметься в робочому порядку через консультації між Партнерами.

Цей Меморандум вступає в силу з дати підписання обома Партнерами і вважається чинним до 31 вересня 2006 року (дати завершення Проекту). Дія Меморандуму може бути подовжена за спільною згодою. Кожен з Партнерів може припинити дію Меморандуму, повідомивши письмово про свій намір іншу сторону з поясненням причини.

ЗАСВІДЧУЮЧИ ВИКЛАДЕНЕ ВИЩЕ, Партнери оформлюють цей Меморандум про взаєморозуміння у двох примірниках (з перекладом на англійську/українську мови) і визнають своє на це право:

Від РАТН:

Від Управління:

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Катерина Гамазіна  
Голова Представництва РАТН у Києві  
“\_\_\_” \_\_\_\_\_ 2004 р.

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Олександр Аніщенко  
Начальник Управління  
“\_\_\_” \_\_\_\_\_ 2004 р.

**MEMORANDUM OF UNDERSTANDING**  
between  
**PROGRAM FOR APPROPRIATE TECHNOLOGY IN HEALTH (PATH)**  
and  
**HEALTH DEPARTMENT OF THE**  
**KYIV CITY STATE ADMINISTRATION**

**RECITALS**

Program for Appropriate Technology in Health (PATH) is a non-profit, non-governmental organization with its principal place of business at 1455 NW Leary Way, Seattle, Washington, USA, and a Ukraine country program office (located at 18/2, Kruglouniversytetska Street, Apt. 2, 01024 Kyiv, Ukraine), whose mission is to improve the health of people around the world by advancing technologies, strengthening systems, and encouraging healthy behaviours; and

Health Department of the Kyiv City State Administration ("Partner") located at 19, Prorizna Street, 01034, Kyiv, Ukraine, jointly the "Parties."

The Parties agree to cooperate in carrying out the project "Support to Ukraine in Implementing its National TB Program" ("Project") in the city of Kyiv in view of their common interests and activities related to the prevention and control of tuberculosis in Ukraine.

The Kyiv City State Administration pays great attention to TB prevention and control. Comprehensive measures to control TB epidemic were introduced in 1994, funded from the city budget. In October 2002, KNCV-KIT started implementing the project "TB Prevention and Control in Kyiv City, Ukraine". The project is financed by the European Union and aims to introduce the WHO-recommended TB control strategy, adapted for Ukraine, in Kyiv City.

Since 1994 PATH has been a partner in public health with the Ministry of Health of Ukraine (MOH) and regional authorities to implement several projects to improve the health of all citizens of Ukraine. Under a Memorandum of Partnership signed in 2001, PATH has provided assistance in the control of diphtheria, provided training in the HIV/AIDS prevention and management, provided technical assistance to improve breast cancer services, strengthened health information systems for vaccine-preventable diseases, as well as other initiatives.

From 2002-2004 PATH cooperated with the World Health Organization (WHO) to successfully implement a pilot project to introduce the DOTS (Directly Observed Therapy, Short-Course) strategy in Donetsk Oblast. In October 2003, PATH initiated the USAID-funded, three-year project "Support to Ukraine in Implementing its National TB Program."

**I. PURPOSE**

The purpose of this Memorandum of Understanding (MOU) is to identify the areas for participation and the responsibilities of the Parties within the framework of the Project.

While this MOU captures the mutual understanding of the Parties at the time of signing, both Parties recognize that this MOU is not a legally binding agreement. PATH and Partner intend that the Parties will enter into an appropriate binding agreement at a later date if the Parties decide to further collaborate.

## **II. PROJECT OBJECTIVE**

The primary objective of the Project is to improve tuberculosis case detection and management in selected locations through the implementation of the WHO-recommended strategy, DOTS. This will be done by facilitating improvement of TB health care for Ukraine's population through supporting and supplementing activities of other national and international partners in Kyiv City, Donetsk Oblast, and other regions of Ukraine in which the DOTS strategy is being introduced.

## **III. ROLES**

### **A. PATH shall:**

1. Prepare TV and radio spots and develop information, education, and communication (IEC) campaigns pertinent to motivating the population to seek timely medical advice if symptoms of TB occur, and to forward those materials free-of-charge to the Partner for broadcasting through local TV channels and radio stations;
2. Develop and print IEC materials on TB for patients and their families, the general public, as well as for populations at risk (including people living with HIV/AIDS). PATH will also forward those materials free-of-charge to the Partner for distribution;
3. Cooperate with respective specialists in Kyiv City to develop and revise TB management information system recording and reporting forms to register, manage, and report TB cases to comply with WHO standards and MOH requirements. Instructions for use of the forms and the electronic version of the TB MIS will be developed as well;
4. Facilitate conducting epidemiological analyses of TB data obtained with the electronic version of TB MIS in accordance with international standards, interpretation, and publication.
5. Create an All-Ukrainian Internet TB Forum to exchange TB news and articles between experts and agencies involved in TB. This Forum will include all members from the Partner who are interested in being on the mailing list.
6. Include as appropriate laboratory and other TB experts in PATH-sponsored symposia, working groups, and/or training seminars.

### **B. Partner shall:**

1. Promote and support the Project's goals and project plan in Kyiv City;
2. Support PATH in arranging monitoring visits to health care facilities and laboratories within the general/primary health care system and for TB services as outlined in the Project plan;
3. Provide PATH with a plan of the activities of the City TB Control Program in Kyiv City for coordination of activities;
4. Facilitate introduction in Kyiv City of application software for TB control that records TB patients through assessment and formulation of requirements for the TB MIS;

5. By September, 2006, provide a copy of the electronic database of the TB MIS in order for PATH to develop an electronic appendix and analyze key indicators of project performance efficiency;
6. Ensure distribution of the printed IEC materials developed and provided by PATH among city health care facilities. Facilitate broadcasting of radio and TV spots developed and provided by PATH through local radio stations and TV channels as social advertising.

**C. Both Parties jointly shall:**

1. Coordinate their activities related to the Project and the City TB Control Program, inform each other about progress, provide each other non-confidential documents pertinent to project implementation, and participate in annual meetings of the Parties;
2. Establish and facilitate the work of a Policy and Advocacy Consulting Group to identify and prioritize necessary revisions or additions to improve legislative and regulatory bases in TB control. Facilitate quarterly meetings of Policy and Advocacy Consulting Group to develop proposals for Verkhovna Rada, the Cabinet of Ministers, and the MOH regarding control of the TB epidemic;
3. Conduct complementary activities within the framework of the project plan and the City TB Control Program to ensure most effective use of budgets of both Parties. Conduct joint activities on conditions of joint funding (as agreed by both Parties);
4. Unite efforts in an attempt to expand the experience from implementing the Project in Kyiv City to other oblasts of Ukraine. This would include introducing an efficient MIS within the framework of the City TB Control Program to increase surveillance and management of TB cases, and planning and assessment of TB control measures.

**IV. FUNDING**

Each Party shall bear its respective costs related to implementation of the Project and the City TB Control Program in accordance with approved budgets.

**V. INTELLECTUAL PROPERTY**

- A. Nothing in this MOU shall be construed as granting either party any right, title, license, or other interest in any patents, trademarks, copyrights, or other intellectual property of the other party.
- B. Any publications resulting from the work performed under this MOU will be subject to review by both Parties at least thirty (30) days before dissemination or other publication, and shall acknowledge the contributions of both Parties, as appropriate, after approval by both Parties of the form the acknowledgement. The publishing party shall provide to each party a minimum of three (3) copies of each publication relating to this MOU at least 30 days prior to the submission of any publication or presentation from work arising from this MOU. The publishing party agrees to give serious consideration to any comments provided by the Parties regarding such publications. The publishing party shall provide three (3) copies of the final version of the publication to the each party.



## **VI. DURATION, AMENDMENT, AND DISPUTE RESOLUTION**

- A. Nothing in this MOU is intended or shall be deemed to constitute a partnership, agency, employer-employee, or joint-venture relationship between the Parties.
- B. This MOU is nonexclusive in nature and does not affect either party's ability to enter into agreements or affiliations with other Parties.
- C. Any differing viewpoints or interpretations on how to put this MOU into effect, which influence the implementation of the Project, will be settled amicably by consultation between the Parties.

This Memorandum comes into effect starting on the last date of signature below, and shall stay effective until 30 September 2006 (project end date). The MOU may be extended as agreed in writing by both Parties. Each Party may cancel this MOU with notification of the other Party in writing.

IN WITNESS WHEREOF, the Parties hereby execute this MOU in duplicate (with English/Ukrainian translation) and acknowledge that they are authorized to execute same:

For PATH:

For Partner:

\_\_\_\_\_

\_\_\_\_\_

Name: Kateryna Gamazina, M.D. .  
Title: Deputy Country Program Leader

Name: Valeriy Pishchikov  
Title: First Deputy Head

Date:\_\_\_\_\_

Date:\_\_\_\_\_

**МЕМОРАНДУМ ПРО ВЗАЄМОРОЗУМІННЯ**  
**між**  
**ПРОГРАМОЮ ОПТИМАЛЬНИХ ТЕХНОЛОГІЙ В ОХОРОНІ ЗДОРОВ'Я (PATH)**  
**та**  
**ГОЛОВНИМ УПРАВЛІННЯМ ОХОРОНИ ЗДОРОВ'Я ТА**  
**МЕДИЧНОГО ЗАБЕЗПЕЧЕННЯ**  
**КИЇВСЬКОЇ МІСЬКОЇ ДЕРЖАВНОЇ АДМІНІСТРАЦІЇ**

**ЗАГАЛЬНІ ПОЛОЖЕННЯ**

Програма оптимальних технологій в охороні здоров'я (надалі - PATH) – неприбуткова неурядова організація, головний офіс якої розташований в місті Сіетл, штат Вашингтон, США, за адресою: 1455, NW Leary Way, Seattle, Washington, USA; Представництво PATH у Києві розташоване за адресою: вул. Круглоуніверситетська, 18/2, офіс 2, м. Київ, 01024. PATH, місією якої є покращання здоров'я людей в усьому світі за допомогою вдосконалення технологій, зміцнення системи охорони здоров'я та заохочення до здорового способу життя;

і  
Головне управління охорони здоров'я та медичного забезпечення Київської міської державної адміністрації (надалі - Управління), що розташоване за адресою: вул. Прорізна, 19, м. Київ, 01034, разом – Партнери.

Партнери мають на меті співпрацювати стосовно реалізації проекту “Сприяння Україні щодо впровадження Національної програми боротьби із захворюванням на туберкульоз” (надалі – Проект) у місті Києві, беручи до уваги спільність інтересів та завдань обох Партнерів в галузі протидії епідемії туберкульозу в Україні.

Київська міська адміністрація приділяє велику увагу боротьбі з захворюванням на туберкульоз. З 1994 р. в місті впроваджуються комплексні протиепідемічні заходи щодо протидії епідемії туберкульозу, які фінансуються з міського бюджету. З жовтня 2002 р. у м. Києві почав впроваджуватись проект KNCV-KIT “Профілактика та боротьба з туберкульозом у місті Києві, Україна”. Проект фінансується Європейським Союзом та має на меті запровадити у м. Києві адаптовану до умов України стратегію контролю захворюваності на туберкульоз, рекомендовану Всесвітньою організацією охорони здоров'я (ВООЗ).

З 1994 р. PATH спільно з Міністерством охорони здоров'я України (надалі – МОЗ) та органами державної влади в регіонах реалізували низку актуальних проектів, метою яких було покращити здоров'я населення України. Відповідно до “Меморандуму про партнерство між PATH і МОЗ”, який був підписаний у 2001 р., PATH надала допомогу у боротьбі з епідемією дифтерії, провела тренінги щодо профілактики та протидії епідемії ВІЛ-інфекції/СНІДу, надала технічну допомогу задля покращення медичного обслуговування пацієнтів з раком молочної залози, зміцнення системи контролю за хворобами, яким можна запобігти за допомогою щеплень, та інші.

У 2002 – 2004 роках PATH спільно з ВООЗ успішно реалізує пілотний проект з впровадження стратегії DOTS (лікування туберкульозу під безпосереднім спостереженням) у Донецькій області. З жовтня 2003 р. PATH розпочала підготовку до виконання трьохрічного

проекту “Сприяння Україні щодо впровадження Національної програми боротьби із захворюванням на туберкульоз”, який фінансується Агентством з міжнародного розвитку США.

## **I. НАМІРИ**

Мета цього Меморандуму про взаєморозуміння (надалі – Меморандум) – визначити участь і відповідальність Партнерів у рамках співпраці щодо впровадження вищезазначеного Проекту.

Хоча цей Меморандум свідчить про взаєморозуміння між Партнерами на момент підписання, обидва Партнери розуміють, що цей Меморандум не є юридичною угодою. РАТН і Управління можуть укласти юридичну угоду пізніше, якщо у цьому виникне потреба.

## **II. МЕТА ПРОЕКТУ**

Головна мета проекту - покращити виявлення і лікування хворих на туберкульоз в пілотних регіонах шляхом впровадження рекомендованої ВООЗ стратегії боротьби з туберкульозом DOTS. Це буде досягнуто завдяки сприяння удосконаленню протитуберкульозної допомоги населенню України шляхом підтримки та доповнення діяльності національних та міжнародних партнерів у місті Києві, Донецькій області та інших регіонах України, де впроваджується DOTS стратегія.

## **III. ЗОБОВ’ЯЗАННЯ ПАРТНЕРІВ**

### **A. РАТН бере на себе зобов’язання:**

1. У рамках інформаційно-освітньої кампанії (ІОК) з метою заохочення населення до своєчасного звернення по медичну допомогу у разі виникнення симптомів туберкульозу розробити і виготовити телевізійні та радіоролики та передати їх безкоштовно Партнеру для трансляції на місцевих каналах телебачення і радіомовлення.
2. Розробити та виготовити друковані інформаційно-освітні матеріали щодо протидії епідемії туберкульозу для хворих на туберкульоз та їх сімей, широких верств населення, а також для специфічних груп ризику (у тому числі для людей, що живуть з ВІЛ/СНІД), та надати їх безкоштовно Партнеру для розповсюдження.
3. Співпрацювати з відповідними спеціалістами міста Києва у галузі розробки та вдосконалення обліково-звітних форм та електронної інформаційної системи для реєстрації, ведення і звіту про випадки туберкульозу та інструкції по їх застосуванню, що відповідають стандартам ВООЗ і вимогам Міністерства охорони здоров'я України.
4. Сприяти проведенню епідеміологічного аналізу згідно з міжнародними стандартами, інтерпретації та публікації отриманих даних про зареєстровані випадки туберкульозу.
5. Створити Всеукраїнський протитуберкульозний Інтернет-форум з метою обміну інформацією між фахівцями та зацікавленими організаціями за допомогою Інтернету з щотижневою розсилкою тематичних новин та статей. Включити до списку учасників усі структури Партнера, що виявлять бажання.
6. Залучати відповідних фахівців у галузі фтизіатрії та лабораторної діагностики до участі у симпозиумах, засіданнях робочих груп, тренінгах та семінарах, що фінансуються РАТН.

## **В. Управління бере на себе зобов'язання:**

1. Сприяти і підтримувати здійснення завдань та плану впровадження Проекту на території м. Києва.
2. Сприяти співробітникам РАТН у проведенні моніторингових візитів в лікувально-профілактичні заклади і лабораторії загально-лікувальної мережі і фтизіатричної служби в рамках плану впровадження Проекту.
3. З метою координації заходів надати РАТН план впровадження міської програми боротьби із захворюванням на туберкульоз.
4. Сприяти впровадженню у м.Києві програмного забезпечення контролю і обліку хворих на туберкульоз шляхом оцінки та формулювання вимог до програмного забезпечення електронної системи управління інформацією протитуберкульозної програми.
5. Включно до вересня 2006 року дозволити РАТН користуватися електронною базою даних системи управління інформацією протитуберкульозної програми для розвитку електронного додатку та аналізу основних індикаторів ефективності впровадження Проекту.
6. Забезпечити розповсюдження інформаційно-освітніх друкованих матеріалів, розроблених та наданих РАТН, у лікувально-профілактичних закладах міста, та сприяти трансляції тематичних радіо- та відео роликів, розроблених та наданих РАТН, на місцевих каналах радіомовлення та телебачення на правах соціальної реклами.

## **С. Обидва Партнери беруть на себе зобов'язання:**

1. Координувати свої заходи в рамках вищезазначеного Проекту та міської програми боротьби із захворюванням на туберкульоз, інформувати один одного про хід впровадження Проекту, надавати один одному документи стосовно реалізації Проекту, що не містять конфіденційної інформації, брати участь у щорічних засіданнях партнерів.
2. Створити та сприяти роботі Консультативної групи з питань удосконалення законодавчої і нормативно-правової бази стосовно боротьби із захворюванням на туберкульоз. Забезпечити щоквартальні збори учасників групи з метою розробки відповідних пропозицій для Верховної Ради України, Кабінету Міністрів та Міністерства охорони здоров'я України щодо актуальних проблем протидії епідемії туберкульозу.
3. З метою найбільш ефективного використання бюджетних коштів Партнерів взаємодоповнювати протиепідемічні заходи в рамках плану впровадження Проекту та міської програми боротьби із захворюванням на туберкульоз, проводити спільні заходи на умовах спільного фінансування (за обоюсторонньою згодою).
4. Партнери об'єднують зусилля щодо поширення досвіду реалізації Проекту у м.Києві на інші області України та впровадження ефективної інформаційної системи в рамках міської програми боротьби із захворюванням на туберкульоз із метою підвищення ефективності епідемічного нагляду і ведення випадків туберкульозу, планування, виконання й оцінки протиепідемічних заходів.

## **IV. ФІНАНСУВАННЯ**

Кожен Партнер нестиме відповідні витрати стосовно своєї діяльності щодо впровадження Проекту та міської програми боротьби із захворюванням на туберкульоз відповідно до затверджених кошторисів.

## **V. ІНТЕЛЕКТУАЛЬНА ВЛАСНІСТЬ**

- А. Жодне положення цього Меморандуму не може бути витлумачене як надання іншій стороні будь-яких прав, ліцензій, або інших інтересів у будь-яких патентах, торговельних марках, права на передрук, або інший інтелектуальній власності другої сторони.
- В. Будь-які публікації, що є результатом роботи, виконаної в рамках цього Меморандуму, підлягають перегляду обома Партнерами як мінімум за тридцять (30) днів до розповсюдження або іншого оприлюднення, та мають містити визнання внеску обох Партнерів після того, як обидва Партнери затвердять форму визнання. Партнер, що публікує матеріали, має надати другій стороні як мінімум три (3) копії кожної публікації, що стосується роботи, виконаної в рамках цього Меморандуму, як мінімум за 30 днів до здачі будь-якої публікації або презентації роботи, що впливає з цього Меморандуму. Партнер, що публікує матеріали, погоджується взяти до уваги будь-які коментарі, що їх надає інший Партнер стосовно даної публікації. Партнер, що публікує матеріали, надасть три (3) копії кінцевої версії публікації іншому Партнеру.

## **VII. ТРИВАЛІСТЬ, ВНЕСЕННЯ ЗМІН І ВИРІШЕННЯ СУПЕРЕЧОК**

- А. Жодне положення цього Меморандуму не спрямоване на створення, і не може вважатися таким, що створює партнерські, агентські стосунки, стосунки між роботодавцем і робітником, або спільного підприємства між Партнерами.
- В. Цей Меморандум є не ексклюзивним за своєю природою та не має впливу на здатність будь-кого з Партнерів вступати в угоди або об'єднання з іншими сторонами.
- С. Будь-яка різниця у поглядах або інтерпретаціях стосовно запровадження цього Меморандуму, що впливає на здійснення Проекту, вирішуватиметься в робочому порядку через консультації між Партнерами.

Цей Меморандум вступає в силу з дати підписання обома Партнерами і вважається чинним до 31 вересня 2006 року (дати завершення Проекту). Дія Меморандуму може бути подовжена за спільною згодою. Кожен з Партнерів може припинити дію Меморандуму, повідомивши письмово про свій намір іншу сторону з поясненням причини.

ЗАСВІДЧУЮЧИ ВИКЛАДЕНЕ ВИЩЕ, Партнери оформлюють цей Меморандум про взаєморозуміння у двох примірниках (з перекладом на англійську/українську мови) і визнають своє на це право:

Від РАТН:

\_\_\_\_\_  
Катерина Гамазіна  
Голова Представництва РАТН у Києві

“\_\_\_” \_\_\_\_\_ 2004 р.

Від Управління:

\_\_\_\_\_  
Валерій Пішиков  
Перший заступник  
Начальника ГУОЗ та МЗ КМДА

“\_\_\_” \_\_\_\_\_ 2004 р.